

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 3, 2006, 08:18:31 ; Search time 188 Seconds
(without alignments)

366.928 Million cell updates/sec

Title: US-10-668-178-2

Perfect score: 780

Sequence: 1 VRSSRTPSDXPVAVHVVNP.....RPDYLDFAESGVYFGIIAL 157

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database :

A_Geneseq_21.*
1: Geneseq1980s.*
2: Geneseq1990s.*
3: Geneseq2000s.*
4: Geneseq2001s.*
5: Geneseq2002s.*
6: Geneseq2003as.*
7: Geneseq2003bs.*
8: Geneseq2004s.*
9: Geneseq2005s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	775	99.4	157	2	AAR62465
2	774	99.2	157	1	AAP60524
3	774	99.2	157	1	AAP70095
4	774	99.2	157	1	AAP70144
5	774	99.2	157	2	AAR14270
6	774	99.2	157	2	AAR14112
7	774	99.2	157	2	AAR27747
8	774	99.2	157	2	AAR42679
9	774	99.2	157	2	AAR38069
10	774	99.2	157	2	AAR62463
11	774	99.2	157	2	AAR60243
12	774	99.2	157	2	AAR57437
13	774	99.2	157	2	AAW28530
14	774	99.2	157	2	AAW40819
15	774	99.2	157	2	ABB08912
16	774	99.2	157	2	AAW23242
17	774	99.2	157	4	AAG79124
18	774	99.2	157	4	AAE10848
19	774	99.2	157	4	AAG67761
20	774	99.2	157	4	AAW4783
21	774	99.2	157	5	AAE18373
22	774	99.2	157	5	AAM51166
23	774	99.2	157	5	ABB76561
24	774	99.2	157	5	ABG70571

25	774	99.2	157	5	ABP54869	Abp54869 Human tum
26	774	99.2	157	5	AAB47940	Aab47940 Human tum
27	774	99.2	157	5	ABP54787	Abp54787 Human ful
28	774	99.2	157	5	ABG76348	Abg76348 Human ful
29	774	99.2	157	6	ABU09888	Abu09888 Human tum
30	774	99.2	157	6	ABG72947	Abg72947 Human tum
31	774	99.2	157	6	ABG75765	Abg75765 Human TNF
32	774	99.2	157	6	ABG75772	Abg75772 Human TNF
33	774	99.2	157	6	ABU63586	Abu63586 Human tum
34	774	99.2	157	7	ADC46568	Adc46568 Human tum
35	774	99.2	157	7	ADC61354	Adc61354 Human TNF
36	774	99.2	157	7	ADC81608	Adc81608 Human tum
37	774	99.2	157	7	ADD44654	Add44654 Human tum
38	774	99.2	157	7	ADD89878	Add89878 Human tum
39	774	99.2	157	7	ADE06773	Adc06773 Human ant
40	774	99.2	157	7	ABW02400	Abw02400 Human tum
41	774	99.2	157	7	ADCE6348	Adc6348 Human tum
42	774	99.2	157	7	ADCE96348	Adc96348 Human tum
43	774	99.2	157	7	ABW02035	Abw02035 Human tum
44	774	99.2	157	7	ADF91146	Adf91146 Human tum
45	774	99.2	157	7	ADG27428	Adg27428 Human tum
46	774	99.2	157	7	ABW02652	Abw02652 Human mat
47	774	99.2	157	7	ADJ63985	Adj63985 Recombina
48	774	99.2	157	7	ADM15642	Adm15642 Human tum
49	774	99.2	157	8	ADM83147	Adm83147 Human tum
50	774	99.2	157	8	ADF89614	Adf89614 Human tum
51	774	99.2	157	8	ADH10159	Adh10159 Human tum
52	774	99.2	157	8	ADH10158	Adh10158 Human tum
53	774	99.2	157	8	ADI29703	Adi29703 Human TNF
54	774	99.2	157	8	ADO24650	Ado24650 Human TNF
55	774	99.2	157	8	ADP22359	Adp22359 Human tum
56	774	99.2	157	8	ADR01199	Adr01199 Human tum
57	774	99.2	157	8	ADQ60272	Adq60272 Human tum
58	774	99.2	157	8	ADP47316	Adp47316 Human tum
59	774	99.2	157	9	ADS64654	Adsg64654 Human tum
60	774	99.2	157	9	ADX97595	Adx97595 Human tum
61	774	99.2	157	9	ADZ19071	Adz19071 Human tum
62	774	99.2	157	9	ADZ72362	Adz72362 Human tum
63	774	99.2	157	9	ABE45417	Aeb45417 Human TNF
64	774	99.2	158	1	AAP60525	Aap60525 Sequence
65	774	99.2	158	1	AAP60533	Aap60533 Sequence
66	774	99.2	158	1	AAP70635	Aap70635 Sequence
67	774	99.2	158	1	AAP81069	Aap81069 Sequence
68	774	99.2	158	1	AAP94762	Aap94762 Polypepti
69	774	99.2	158	1	AAP95650	Aap95650 Antitumou
70	774	99.2	158	1	AAP91026	Aap91026 Human tum
71	774	99.2	158	1	AAP93188	Aap93188 Synthetic
72	774	99.2	158	2	AAR05807	Aar05807 Polypepti
73	774	99.2	158	2	AAR05613	Aar05613 Antitumou
74	774	99.2	158	2	AAR07901	Aar07901 Human TNF
75	774	99.2	158	2	AAR04115	Aar04115 Modified
76	774	99.2	158	2	AAR20625	Aar20625 Synthetic
77	774	99.2	158	2	AAR88592	Aar88592 Human met
78	774	99.2	158	2	AAR88591	Aar88591 Human met
79	774	99.2	158	4	AAW47966	Aaw47966 Human TNF
80	774	99.2	158	5	AAW49766	Aaw49766 Human TNF
81	774	99.2	158	6	AAO30461	Aao30461 Human wil
82	774	99.2	158	8	ADU51444	Adu51444 Human TNF
83	774	99.2	159	1	AAP71174	Aap71174 Sequence
84	774	99.2	160	1	AAP80161	Aap80161 Biotynthe
85	774	99.2	164	4	AAB82901	Aab82901 Histidine
86	774	99.2	164	6	ABR42163	Abz42163 His-tagge
87	774	99.2	164	9	ADZ56235	Adz56235 Histidine
88	774	99.2	164	9	AEC10124	Aec10124 Human TNF
89	774	99.2	170	6	ADA00722	Ada00722 Human TNF
90	774	99.2	173	6	AAO30470	Aao30470 Human TNF
91	774	99.2	177	7	ABW02655	Abw02655 Human pro
92	774	99.2	180	4	AAW72934	Aaw72934 OmpA sign
93	774	99.2	193	2	AAW48246	Aaw48246 Tumour ne
94	774	99.2	193	2	AAW90067	Aaw90067 Human TNF
95	774	99.2	193	5	ABG73877	Abg73877 FLAG tagg
96	774	99.2	193	5	AAM50621	Aam50621 Tumour ne
97	774	99.2	193	7	ADC28285	Adc28285 Peptide c

98 774 99.2 232 7 ABW02665 Human pro
99 774 99.2 233 1 AAP50096 Sequence
100 774 99.2 233 1 AAP60605 Sequence

ALIGNMENTS

RESULT 1

A262465
ID AAR62465 standard; protein; 157 AA.

XX AC AAR62465;
XX
DT 25-MAR-2003 (revised)
DT 03-JUN-1995 (first entry)
XX
XX Tumour necrosis factor-alpha mutein K65A.
XX Human; tumour necrosis factor; TNF; TNF-a; expression; mutein; mutation;
KW receptor; affinity; therapeutic; diagnostic; cancer therapy; cancer;
KW obesity; septic shock; meningitis.
XX
XX Synthetic.

XX
XX

Key Location/Qualifiers

FT Misc-difference 65 /label= Lys to Ala
FT

XX
XX

PN EP619372-Al.

XX
XX

PD 12-OCT-1994.

XX
XX

PF 17-MAR-1994; 94EP-00104154.

XX
XX

PR 29-MAR-1993; 93EP-00810224.

XX
XX

(HOFF) HOFFMANN LA ROCHE & CO AG F.

PA
PI

Banner D, Lesclauer W, Loetscher H, Stueber D;

XX
XX

WPI; 1994-311810/39.

DR
DR

N-PSDB; AAQ87684.

XX
XX

New human TNF-a muteins with higher affinity for p75-TNFR - useful e.g.
for cancer therapy, treatment of obesity and toxic shock.

PT
PT

XX
XX

Claim 4; Page 15; 53pp; English.

PS
PS

The amino acid sequence of the mutated human tumour necrosis factor alpha
(TNF-a). The mutein differs from the wild type at position 65 with a
change from a Lys residue to a Ala residue. The gene encoding the protein
is placed in the expression plasmid pBS56/RBSII and called
CC pBS56/RBSII, SpHr-TNFA(K65A). The expression of the wild type or mutein
CC proteins is regulated by the lac repressor present on the plasmid pREP4.
CC The gene encoding the protein is mutated at specific sites resulting in a
CC series of mutated proteins (AAR62464-83 and AAR63093-103). The biological
CC activities of TNF are mediated via specific receptors of mol. wt. 55 and
CC 75 kDa called p55-TNFR-R and p75-TNFR-R respectively. The mutated proteins
CC presented have a higher affinity for the human p75-TNFR receptor than for
CC the p55-TNFR receptor. The mutated proteins can be used in a variety of
CC therapeutic or diagnostic applications including cancer therapy,
CC treatment of obesity, septic shock or bacterial meningitis. (Updated on
CC 25-MAR-2003 to correct PN field.)

XX
XX

Sequence 157 AA;

Query Match

Best Local Similarity 99.4%; Score 775; DB 2; Length 157;

Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXPVAHVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

|||||

1 VRSSRTSPDXPVAHVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

|||||

61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120

|||||

61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120

|||||

Db 1 VRSSRTSPDXPVAHVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120
Db 61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120
QY 121 GGVFOLEXGDRLSABINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFOLEXGDRLSABINRPDYLDFAESGQVYFGIIAL 157

RESULT 2

AAP60524

ID AAP60524 standard; protein; 157 AA.

XX AC AAP60524;
XX
DT 25-MAR-2003 (revised)
DT 07-AUG-1991 (first entry)
XX
DE Sequence of tumour necrosis factor (TNF).
XX Anticancer agent; antitumour; antimalarial; tumour necrosis factor.
XX Oryctolagus cuniculus.
XX
XX WO8603751-A.
XX
XX 03-JUL-1986.
XX
XX 19-DEC-1985; 85WO-EP000721.
XX
XX 21-DEC-1984; 84US-00684595.
XX 09-OCT-1985; 85US-00785847.
XX 09-OCT-1986; 86WO-US002133.
XX
XX (BIOJ) BIOGEN NV.
XX (FIER/) FIER W C.
XX (ALLE/) ALLET B.
XX (BIOJ) BIOGEN INC.
XX
XX Fiers WC, Franssen LM, Tavernier JHL, Marmenout ALM, Vanderheyd J;
PI Allet B;
PI
WPI; 1986-182891/28.
DR N-PSDB; AAN60442.
XX
XX Mammalian tumour necrosis factors - produced by culturing pro-karyotic
hosts transformed with recombinant DNA.
PT
PT
PS Claim 11; Page 66; 93pp; English.
XX
XX TNF-like polypeptides and compens. are produced by the fermentation of
host cells transformed with at least one DNA sequence which codes for a
mammalian TNF-like polypeptide operatively linked to an expression
control sequence in the transformed host. (Updated on 25-MAR-2003 to
correct PA field.)
XX
XX Sequence 157 AA;

Query Match 99.2%; Score 774; DB 1; Length 157;

Best Local Similarity 96.2%; Pred. No. 1.5e-74;

Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXPVAHVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

|||||

1 VRSSRTSPDXPVAHVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

|||||

61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120

|||||

61 QVLFYXGQCPSTHVLTTHTTISRIVSYQTXVNLSSAIXSPCORETPEGAEAXPWYEPYIL 120

|||||

121 GGVFOLEXGDRLSABINRPDYLDFAESGQVYFGIIAL 157

|||||

Db 121 GGVFQLEKGRSLAEINRPDYLDFAESGQVYFGIALL 157
 |||||

RESULT 3

AAP70095
 ID AAP70095 standard; protein; 157 AA.

XX AAP70095;

AC 04-APR-1991 (first entry)

XX Tumour necrosis factor.

XX Plasmid; tumour necrosis factor; antitumour agent.

XX Escherichia coli.

OS EP220482-A.

PN 06-MAY-1987.

XX 19-SEP-1986; 86EP-00112941.

XX 30-SEP-1985; 85JP-00217740.

PR (SUNR) SUNTORY LTD.

XX Oshima T, Tanaka S, Matsukura S;

XX WPI; 1987-124161/18.

XX New plasmid for efficient tumour necrosis factor prodn. - comprises
 PT plasmid with DNA fragment having phase-gene derived promoter region and E
 coli derived transcription termination sequence.

XX Claim 6; Page 17-18; 3lpp; English.

XX Tumour necrosis factor can be expressed using a plasmid comprising a
 CC phase gene-derived promoter region upstream of the TNF structural gene
 CC and an E.coli trp a gene terminator joined immediately downstream of a
 CC base sequence encoding the termination of translation of the structural
 CC gene. The plasmid is capable of efficient expression of TNF on a large
 CC scale and with high purity. The transformants may achieve a TNF activity
 CC 40-300 times as great as with prior transformants. TNF may comprise at
 CC least 40% of total cell protein. The plasmid lacks a pBR322 derived
 CC repressor of primer gene. TNF is an antitumour agent

XX Sequence 157 AA;

Query Match 99.2%; Score 774; DB 1; Length 157;

Best Local Similarity 96.2%; Pred. No. 1.5e-74;

Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

Db 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

Qy 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYIL 120

Db 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYIL 120

Qy 121 GGVFQLEKGRSLAEINRPDYLDFAESGQVYFGIALL 157

Db 121 GGVFQLEKGRSLAEINRPDYLDFAESGQVYFGIALL 157

RESULT 4

AAP70144
 ID AAP70144 standard; protein; 157 AA.

XX AAP70144;

XX Tumour necrosis factor; cytotoxic; metastasis.

DT 03-OCT-2002 (revised)
 XX 13-MAY-1991 (first entry)

XX Amino acid sequence of mature tumour necrosis factor (TNF).

XX Tumour necrosis factor analogue; lymphokine; anti-tumour.

XX Homo sapiens.

XX EP220966-A.

XX 06-MAY-1987.

XX 30-OCT-1986; 86EP-00308484.

XX 30-OCT-1985; 85US-00792815.

XX 22-MAY-1986; 86US-00866213.

XX (CETU) CETUS CORP.

XX Lin LSL, Dorin G, Yamamoto R, Hanisch WH, Thomson JW, Wolfe SN;

XX WPI; 1987-124486/18.

XX Purified recombinant tumour necrosis factor compen. - obt'd. by using a
 PT hydrophobic matrix to retain the factor followed by chromatographic
 PT elution.

XX Disclosure; Fig 3; 25pp; English.

XX Specific examples of TNF analogues include N-terminally deleted species
 CC of the protein, including those having deletions of the N-terminal
 CC 1,2,3,4,5,6,7,8,9,10,14, and 31 AA's of the SQ in AAP70144. Muteins
 CC lacking up to and including the first ten AA's at the N-terminus have
 CC been found to have comparable or greater specific activities as compared
 CC to the TNF of the SQ shown in AAP70144. Other muteins of TNF covered by
 CC the method of the invention include species of TNF in which any or all of
 CC the cysteine residues have been converted to serine or other neutral AA's
 CC for example, glycine or alanine. In general, neutral AA replacements of
 CC the cysteine at position 69 result in active TNF proteins. It appears
 CC that the cysteine at position 101 is also dispensable. (Updated on 03-OCT
 CC -2002 to add missing OS field.)

XX Sequence 157 AA;

Query Match 99.2%; Score 774; DB 1; Length 157;

Best Local Similarity 96.2%; Pred. No. 1.5e-74;

Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

Db 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

Qy 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYIL 120

Db 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYIL 120

Qy 121 GGVFQLEKGRSLAEINRPDYLDFAESGQVYFGIALL 157

Db 121 GGVFQLEKGRSLAEINRPDYLDFAESGQVYFGIALL 157

RESULT 5

AAR14270

ID AAR14270 standard; peptide; 157 AA.

XX AAR14270;

XX 09-JAN-1992 (first entry)

XX Human TNF.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

XX FT *Peptide 1..18

XX FT /label= #301

XX FT Peptide 13..26

XX FT /label= #306

XX FT Peptide 22..40

XX FT /label= #307

XX FT Peptide 43..58

XX FT /label= #302

XX FT /note= "claim 2 "

XX FT Peptide 54..68

XX FT /label= #308

XX FT /note= "claim 3 "

XX FT Peptide 63..83

XX FT /label= #304

XX FT Peptide 70..80

XX FT /note= "claim 7 "

XX FT Peptide 73..94

XX FT /label= #309

XX FT /note= "claim 5 "

XX FT Peptide 79..89

XX FT /label= #323

XX FT Peptide 81..94

XX FT /note= "claim 6 "

XX FT Peptide 94..109

XX FT /label= #303

XX FT Peptide 111..120

XX FT /label= #275

XX FT Peptide 132..150

XX FT /label= #305

XX FT /note= "Claim 4 "

XX PN W09114702-A.

XX PD 03-OCT-1991.

XX PP 19-MAR-1990; 90AU-00009156.

XX PR 19-MAR-1990; 90AU-00009156.

XX PR 22-NOV-1990; 90AU-00003477.

XX PA (PEPT-) PEPTIDE TECHN LTD.

XX PI Rathjen D, Aston R;

XX PP 1991-310534/42.

XX PT New cytotoxic and/or proliferation-inhibiting polypeptide fragments -

XX PT useful in treatment of tumours with reduced side effects.

XX PS Claim 1; Fig 1; 35pp; English.

XX CC The peptide fragments indicated in the feature table have cytotoxic

XX CC and/or inhibition of proliferation effects on tumour cells. The peptides

XX CC may be co-administered with whole TNF alpha or with a cyto-toxic drug

XX SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;

Best Local Similarity 96.2%; Pred. No. 1.5e-74;

Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPAHVAVNPQAGQLQWLNRRANALLANGVELRDNLVVPSEGLYIYS 60

DB 1 VRSSRTPSDKPAHVAVNPQAGQLQWLNRRANALLANGVELRDNLVVPSEGLYIYS 60

QY 61 QVLFKGGCGFSTHLLTHTTISRIVSYQTKVLLSAIXSPCORETPEGAEKWPVEPIYL 120

DB 61 QVLFKGGCGFSTHLLTHTTISRIVSYQTKVLLSAIXSPCORETPEGAEKWPVEPIYL 120

QY 121 GGVFOLEXGDRLSAEINRPDYLDFAESGQVYFGIALL 157

DB 121 GGVFOLEXGDRLSAEINRPDYLDFAESGQVYFGIALL 157

RESULT 6

AAR14112

ID AAR14112 standard; peptide; 157 AA.

XX AAR14112;

XX 11-DEC-1991 (first entry)

XX Neutrophil stimulating peptide.

DE HTNF; AIDS; cancer; inflammatory syndromes; rheumatoid arthritis;

XX adult respiratory distress syndrome; human tumour necrosis factor.

XX Synthetic.

XX Key Location/Qualifiers

XX FT Peptide 1..18

XX FT /label= peptide 301

XX FT Peptide 13..26

XX FT /label= peptide 306

XX FT Peptide 22..40

XX FT /label= peptide 307

XX FT Peptide 43..58

XX FT /label= peptide 302

XX FT Peptide 54..68

XX FT /label= peptide 308

XX FT /note= "neutrophil stimulating activity and selective

XX FT effects on neutrophil degranulation"

XX FT Peptide 63..83

XX FT /label= peptide 304

XX FT /note= "neutrophil stimulating activity"

XX FT Peptide 70..80

XX FT /label= peptide 395

XX FT /note= "neutrophil stimulating activity"

XX FT Peptide 73..94

XX FT /label= peptide 309

XX FT /note= "neutrophil stimulating activity"

XX FT Peptide 76..84

XX FT /label= peptide 393

XX FT Peptide 79..89

XX FT /label= peptide 323

XX FT Peptide 81..94

XX FT /label= peptide 394

XX FT Peptide 84..94

XX FT /label= peptide 396

XX FT Peptide 94..109

XX FT /label= peptide 303

XX FT Peptide 111..120

XX FT /label= peptide 275

XX FT Peptide 132..150

XX FT /label= peptide 305

XX W09113908-A.

XX PD 19-SEP-1991.

XX PF 12-MAR-1990; 90AU-00009065.

XX PR 12-MAR-1990; 90AU-00009065.

XX (PEPT-) PEPTIDE TECHN LTD.

XX Rathjen DA, Ferrante A;

XX WPI; 1991-295580/40.

XX New neutrophil stimulating peptide(s) derived from human TNF - useful for

XX treating depressed neutrophil function in e.g. AIDS and cancer, and

PT inflammatory syndrome in e.g. rheumatoid arthritis.

PS Disclosure; Fig 1; 27pp; English.

CC The amino acid sequence codes for human tumour necrosis factor. Peptides
CC derived from this sequence have neutrophil stimulating activity. The
CC peptides were synthesised using the Fmoc-polyamide method of solid
CC peptide synthesis. Treatment with the peptides can be used to restore
CC depressed or aberrant neutrophil activity without causing the side
CC effects associated with the therapeutic use of the whole TNF molecule.
CC Such peptides can be used in the treatment of individuals suffering from
CC AIDS, cancer or inflammatory syndromes e.g. rheumatoid arthritis or adult
CC respiratory distress syndrome

SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.5e-74;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 VRSSRTSPDXKPVAVVYVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYLIYS 60
DB 1 VRSSRTSPDXKPVAVVYVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYLIYS 60
QY 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLSSAIXSPCQRTPEGAAXPWYPIYL 120
DB 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLSSAIXSPCQRTPEGAAXPWYPIYL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

RESULT 7

AAR27747
ID AAR27747 standard; protein; 157 AA.

XX AAR27747;

XX 25-MAR-2003 (revised)

DT 03-MAR-1993 (first entry)

XX Human tumour necrosis factor alpha.

XX hTNF; monoclonal antibody; sepsis syndrome, cachexia, microbial;
KW infection; rheumatoid arthritis; inflammation.

XX Homo sapiens.

XX Key Location/Qualifiers
FT Region 1..20
FT /note= "putative receptor binding portion"
FT Region 11..13
FT /note= "putative receptor binding portion"
FT Region 37..42
FT /note= "putative receptor binding portion"
FT Region 49..57
FT /note= "putative receptor binding portion"
FT Region 59..80
FT /note= "epitope for Ab binding"
FT Region 87..108
FT /note= "epitope for Ab binding"
FT Region 155..157
FT /note= "putative receptor binding portion"

XX WO9216553-A1.

XX 01-OCT-1992.

XX 18-MAR-1992; 92WO-US002190.

XX 18-MAR-1991; 91US-00670827.

XX

PA (UJNY) UNIV NEW YORK STATE.
PA (CENZ) CENTOCOR INC.

PI Le J, Vilcek J, Daddona PE, Ghrayeb J, Knight DM, Siegel SA;

XX WPI; 1992-349155/42.

XX Monoclonal and chimeric antibodies to human TNF - useful for treating
PT sepsis syndrome, cachexia, microbial infections, rheumatoid arthritis,
PT inflammation, etc.

XX Claim 22; Page 77; 105pp; English.

XX Anti-TNF antibodies were prepd. which bound to an epitope of at least 5
CC amino acids of residues 87-108 or both of residues 59-80 and 87-108 of
CC human tumour necrosis factor alpha, but do not bind known or putative
CC receptor binding portions of TNF, such as those shown in the features
CC table. The antibodies may be prepd. by hybridomas or recombinantly and
CC may be used for in vivo treatment and diagnosis of human pathologies
CC associated with TNF e.g. sepsis syndrome, cachexia, circulatory collapse
CC and shock resulting from acute or chronic bacterial infection, acute and
CC parasitic or infectious processes, including bacterial, viral and fungal
CC infections, acute and chronic immune and autoimmune pathologies such as
CC sarcoidosis and Crohn's disease, vascular inflammatory pathologies such
CC as disseminated intravascular coagulation, graft vs. host disease,
CC Kawasaki's disease and malignant tumours. The antibodies may be used in
CC combination with TNF therapy, e.g. cancer therapy to remove the undesired
CC side effects. They may also be used to remove TNF from fluids, tissues or
CC cells, to detect or quantitate TNF and for blocking TNF activity in vivo,
CC in situ and in vitro. (Updated on 25-MAR-2003 to correct PN field.)
CC (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.5e-74;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXKPVAVVYVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYLIYS 60

DB 1 VRSSRTSPDXKPVAVVYVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYLIYS 60

QY 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLSSAIXSPCQRTPEGAAXPWYPIYL 120

DB 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLSSAIXSPCQRTPEGAAXPWYPIYL 120

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

RESULT 8

AAR42679

ID AAR42679 standard; protein; 157 AA.

XX AAR42679;

XX 25-MAR-2003 (revised)

DT 19-APR-1994 (first entry)

XX Human Tumour Necrosis Factor alpha.

XX Plasmid pDS56/RBSII, Sphi-TNF-alpha; mutein; inflammation; obesity;
KW septic shock; treatment; mutagenic PCR; cytokine.

XX Homo sapiens.

XX EP563714-A2.

XX 06-OCT-1993.

XX 20-MAR-1993; 93EP-00104591.

XX

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PR 02-APR-1992; 92BP-00810249.
XX
XX (HOFF ) HOFFMANN LA ROCHE & CO AG F.
XX
XX * Lesslauer W, Loetscher H, Stueber D;
XX
XX WPI; 1993-313109/40.
XX
XX DR N-PSDB; AAQ49223.
XX
XX New human Tumour Necrosis Factor mutein(s) - have amino acid change at
XX PT position 86, for selective binding affinity to the p55-TNF-Receptor.
XX
XX PS Disclosure; Fig 1b; 29pp; English.
XX
XX CC The human TNF-alpha expression plasmid pDS56/RBSII.Sphi-TNF-alpha was
XX used as the source of TNF-alpha gene for preparing the various TNF-alpha
XX muteins of the invention. Mutagenic PCR was used on the wild-type
XX CC template to introduce amino acid substitutions at sites affecting binding
XX CC specificity. The muteins retain binding activity to the human p55-TNF-
XX CC Receptor but do not bind to the human p75-TNF-Receptor. Consequently,
XX CC the muteins have lower systemic toxicity and only elicit some of the
XX CC activities of wild-type TNF-a. (Updated on 25-MAR-2003 to correct PN
XX CC field.)
XX
XX SQ Sequence 157 AA;
XX
XX Query Match 99.2%; Score 774; DB 2; Length 157;
XX Best Local Similarity 96.2%; Pred. No. 1.5e-74;
XX Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
XX
XX QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
XX Db 1 VRSSRTPSDKPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
XX
XX QY 61 QVLFKGGCGPSTHVLTLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAAXPWYEPIYL 120
XX Db 61 QVLFKGGCGPSTHVLTLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAAXPWYEPIYL 120
XX
XX QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIALL 157
XX Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIALL 157
XX
XX RESULT 9
XX AAR38069
XX ID AAR38069 standard; protein; 157 AA.
XX
XX AC AAR38069;
XX
XX DT 14-OCT-1993 (first entry)
XX
XX DE Human TNF-alpha.
XX
XX KW Withdrawal symptom; tumour necrosis factor; narcotic; nicotine; morphine;
XX KW thymosin; alcohol.
XX
XX OS Homo sapiens.
XX
XX XX JP05117161-A.
XX
XX PD 14-MAY-1993.
XX
XX PF 23-OCT-1991; 91JP-00337489.
XX
XX PR 23-OCT-1991; 91JP-00337489.
XX
XX (SOMA/) SOMA G.
XX PA (MIZU/) MIZUNO D.
XX
XX WPI; 1993-191442/24.
XX
XX Drugs for treating alcohol, morphine narcotics or nicotine withdrawal
XX PT symptoms - contg. tumour necrosis factor-alpha, thymosin tumour necrosis
XX

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PT factor fused cpd. or murine tumour necrosis factor-alpha prepd. from
PT macrophage of human or animal.
XX
XX PS Disclosure; Page 2-3; 5pp; Japanese.
XX
XX CC Drugs acting on withdrawal symptoms contain TNF, esp. TNF-alpha (AAR38069
XX and AAR38077), rTNF-S-AM1 (AAR38070), rTNF-S-AM2 (AAR38071), thymosin-
XX CC beta4-TNF fused cpd. (AAR38072-76). The drugs are effective in treatment
XX CC of withdrawal symptoms caused by habitual use of alcohol, morphine
XX CC narcotics or nicotine in humans or animals (e.g. swine, dog, cat,
XX CC chicken). The drugs may be administered as TNF at a dose of 10ng-10mg
XX CC orally or 5ng-1mg i.v. or 50ng-50mg percutaneously a day for a human
XX CC adult. In animals, the drugs may be administered according to the human
XX CC dosage (1/50 per kg body wt.)
XX
XX SQ Sequence 157 AA;
XX
XX Query Match 99.2%; Score 774; DB 2; Length 157;
XX Best Local Similarity 96.2%; Pred. No. 1.5e-74;
XX Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
XX
XX QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
XX Db 1 VRSSRTPSDKPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
XX
XX QY 61 QVLFKGGCGPSTHVLTLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAAXPWYEPIYL 120
XX Db 61 QVLFKGGCGPSTHVLTLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAAXPWYEPIYL 120
XX
XX QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIALL 157
XX Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIALL 157
XX
XX RESULT 10
XX AAR62463
XX ID AAR62463 standard; protein; 157 AA.
XX
XX AC AAR62463;
XX
XX DT 25-MAR-2003 (revised)
XX DT 02-JUN-1995 (first entry)
XX
XX DE Tumour necrosis factor-alpha protein.
XX
XX KW Human; tumour necrosis factor; TNF; TNF-a; expression; mutein; mutation;
XX KW receptor; affinity; therapeutic; diagnostic; cancer therapy; cancer;
XX KW obesity; septic shock; meningitis.
XX
XX OS Homo sapiens.
XX
XX XX EP619372-A1.
XX
XX PD 12-OCT-1994.
XX
XX PF 17-MAR-1994; 94EP-00104154.
XX
XX PR 29-MAR-1993; 93EP-00810224.
XX
XX (HOFF ) HOFFMANN LA ROCHE & CO AG F.
XX
XX PI Banner D, Lesslauer W, Loetscher H, Stueber D;
XX
XX WPI; 1994-311810/39.
XX
XX DR N-PSDB; AAQ73431.
XX
XX New human TNF-a muteins with higher affinity for p75-TNFR - useful e.g.
XX PT for cancer therapy, treatment of obesity and toxic shock.
XX
XX PS Disclosure; Page 28-31; 53pp; English.
XX
XX The amino acid sequence of the human wild type tumour necrosis factor
XX alpha (TNF-a). The gene encoding the protein is placed in the expression
XX

```

CC plasmid pDS56/RBSII and called pDS56/RBSII.SphI-TNFA. The expression of
 CC the wild type or mutant proteins is regulated by the lac repressor
 CC present on the plasmid pREP4. The gene encoding the protein is mutated at
 CC specific sites resulting in series of mutated proteins (AAR62464-83 and
 CC AAR63093-103). The biological activities of TNF are mediated via specific
 CC receptors of mol. wt. 55 and 75 kDa called p55-TNF-R and p75-TNF-R
 CC respectively. The mutated protein presented have a higher affinity for
 CC the human p75-TNF receptor than for the p55-TNF receptor. The mutated
 CC proteins can be used in a variety of therapeutic or diagnostic
 CC applications including cancer therapy, treatment of obesity, septic shock
 CC or bacterial meningitis. (Updated on 25-MAR-2003 to correct PN field.)
 XX
 SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
 Best Local Similarity 96.2%; Pred. No. 1.5e-74;
 Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 QY 1 VRSSRTSPDXPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
 DB 1 VRSSRTSPDXPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
 QY 61 QVLFKGGCGPSTHLLTHTSIRIAVSQTKVNLISAIKSPCQRETPGAGAXPWYEPYIL 120
 DB 61 QVLFKGGCGPSTHLLTHTSIRIAVSQTKVNLISAIKSPCQRETPGAGAXPWYEPYIL 120
 QY 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIL 157
 DB 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIL 157

RESULT 11
 AAR60243
 ID AAR60243 standard; peptide; 157 AA.

XX AAR60243;
 XX
 DT 25-MAR-2003 (revised)
 DT 16-MAR-1995 (first entry)
 XX Human TNF-alpha.
 XX TNF-alpha; tumor necrosis factor-alpha; tip peptide; mutein; cancer;
 KW sepsis; inflammation; cytokine; metastasis; lectin; adhesion;
 KW mutagenesis.
 XX Homo sapiens.
 OS
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 1..8
 FT /note= "In TNF muteins, residues 1-8 are replaced by a
 FT peptide within the region spanning aa 5-30 of laminin"
 FT Misc-difference 101
 FT /note= "In TNF muteins, residue 101 is Ser"
 FT Misc-difference 102
 FT /note= "In TNF muteins, residue 102 is Arg or deleted"
 FT Misc-difference 103
 FT /note= "In TNF muteins, residue 103 is Trp"
 FT Misc-difference 105
 FT /note= "In TNF muteins, residue 105 is Pro or Ile or
 FT residue 105 is Ile and residue 44 is Cys"
 FT Misc-difference 106
 FT /note= "In TNF muteins, residue 106 is Ser, or residue
 FT 106 is Ser and residue 131 is Cys"
 FT Misc-difference 108
 FT /note= "In TNF muteins, residue 108 is Phe"
 FT Misc-difference 110
 FT /note= "In TNF muteins, residue 110 is Lys"
 FT Misc-difference 111..112
 FT /note= "In TNF muteins, residues 111-112 are deleted, or
 FT residue 111 is deleted or Met, or residue 111 is deleted
 FT and residue 109 is Gln and residue 120 is His"
 FT Misc-difference 115..116

FT Misc-difference 115
 FT /note= "In TNF muteins, residues 115-116 are Ile-Lys"
 FT Misc-difference 116
 FT /note= "In TNF muteins, residue 115 is Ile or Cys"
 FT Misc-difference 116
 FT /note= "In TNF muteins, residue 116 is Lys, His or Val"
 XX
 PN WO9418325-A1.
 XX
 PD 18-AUG-1994.
 XX
 PP 02-FEB-1994; 94WO-EP000286.
 XX
 PR 03-FEB-1993; 93EP-00400262.
 XX
 PA (INNO-) INNOGENETICS NV SA.
 XX
 PI Lucas R, De Baetselier P, Franssen L, Sablon E;
 XX
 DR WPI; 1994-279746/34.
 XX
 PT New tumour necrosis factor -alpha muteins, antibodies and antisense
 PT peptide(s) - used in the treatment of diseases and conditions associated
 PT with the in vivo activities of TNF-alpha eg cancer, sepsis, inflammation,
 PT etc.
 XX
 PS Disclosure; Page 10; 132pp; English.
 XX
 CC TNF-alpha muteins were constructed in the tip region (given in AAR60231)
 CC of human TNF-alpha. The mutations resulted in: modulation of lectin-like
 CC activity; reduced toxic activity; modulation of inflammatory activity;
 CC modulated adhesion molecule inducing capacity; reduced metastasis
 CC promoting activity; and/or increased half-life. Muteins of the mouse TNF
 CC (given in AAR60244) may also be produced. (Updated on 25-MAR-2003 to
 CC correct PN field.)
 XX
 SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
 Best Local Similarity 96.2%; Pred. No. 1.5e-74;
 Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 QY 1 VRSSRTSPDXPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
 DB 1 VRSSRTSPDXPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
 QY 61 QVLFKGGCGPSTHLLTHTSIRIAVSQTKVNLISAIKSPCQRETPGAGAXPWYEPYIL 120
 DB 61 QVLFKGGCGPSTHLLTHTSIRIAVSQTKVNLISAIKSPCQRETPGAGAXPWYEPYIL 120
 QY 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIL 157
 DB 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIL 157

RESULT 12
 AAR57437
 ID AAR57437 standard; protein; 157 AA.
 XX
 AC AAR57437;
 XX
 DT 25-MAR-2003 (revised)
 DT 13-MAR-1995 (first entry)
 XX Human tumour necrosis factor (wild-type).
 DE
 XX Tumour necrosis factor; TNF; mutein; variant; antitumour; toxicity;
 KW haemorrhagic necrosis; antiviral; parasite; malaria.
 XX Homo sapiens.
 OS
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 1..7
 FT /note= "one or more of the first 7 N-terminal amino acids

FT Misc-difference 4 may be deleted"
 FT /note= "Ser pref. replaced by Arg"
 FT Misc-difference 5
 FT /note= "Ser pref. replaced by Arg"
 FT Misc-difference 6
 FT /note= "Arg pref. replaced by Ala"
 FT Misc-difference 7
 FT /note= "Thr pref. replaced by His or Lys"
 FT Misc-difference 8
 FT /note= "Pro pref. replaced by Arg"
 FT Misc-difference 9
 FT /note= "Ser pref. replaced by Lys"
 FT Misc-difference 10
 FT /note= "Asp pref. replaced by Arg"
 FT Misc-difference 38
 FT /note= "Ala pref. replaced by Asp"
 FT Misc-difference 39
 FT /note= "Asn pref. replaced by Asp, Lys or Val"
 FT Misc-difference 40
 FT /note= "Gly pref. replaced by Asp, Lys or Val"
 FT Misc-difference 41
 FT /note= "Val pref. replaced by Ser"
 FT Misc-difference 52
 FT /note= "Ser pref. replaced by Ile, Glu or Lys"
 FT Misc-difference 53
 FT /note= "Glu pref. replaced by Lys or Leu"
 FT Misc-difference 54
 FT /note= "Gly pref. replaced by Asp or Val"
 FT Misc-difference 56
 FT /note= "Tyr pref. replaced by Phe or Glu"
 FT Misc-difference 85
 FT /note= "Val pref. replaced by Glu or Arg"
 FT Misc-difference 86
 FT /note= "Ser pref. replaced by Leu, Lys, Glu or Asp"
 FT Misc-difference 87
 FT /note= "Tyr pref. replaced by Glu or Arg"
 FT Misc-difference 88
 FT /note= "Gln pref. replaced by Glu"
 FT Misc-difference 127
 FT /note= "Glu pref. replaced by Ala, Val or Lys"
 FT Misc-difference 128
 FT /note= "Lys pref. replaced by Ala, Val or Glu"
 FT Misc-difference 129
 FT /note= "Gly pref. replaced by Glu, Lys or Val"
 FT Misc-difference 156
 FT /note= "Ala pref. replaced by Asp"
 FT Misc-difference 157
 FT /note= "Leu pref. replaced by Phe"
 FT DE4404124-Al.
 FT 11-AUG-1994.
 FT 09-FEB-1994; 94DE-04404124.
 FT 09-FEB-1993; 93KR-00001751.
 FT (HANI-) HANIL SYNTHETIC FIBER CO LTD.
 FT Shin H, Shin N, Lee I, Kang S;
 FT WPI; 1994-250457/31.
 FT N-PSDB; AAQ67089.
 FT New tumour necrosis factor mutants and related DNA - also vectors and
 FT transformed cells, with increased antitumour activity and lower toxicity
 FT than wild type protein.
 FT Claim 1; Page 20; 23pp; German.
 FT PS
 FT TNF mutants are claimed, in which at least one amino acid at positions 4-
 FT 10, 38-41, 52-54, 56, 85-88, 127-129, 156 or 157 is exchanged for a
 FT CC

CC different amino acid. Opt. one or more of the first 7 N-terminal amino
 CC acids is deleted. TNF causes haemorrhagic necrosis of tumours; has anti-
 CC viral activity and inactivates some species of malarial parasites. The
 CC mutants have increased antitumour activity and lower toxicity than wild-
 CC type protein. (Updated on 25-MAR-2003 to correct PN field.)
 XX
 SQ Sequence 157 AA;
 Query Match 99.2%; Score 774; DB 2; Length 157;
 Best Local Similarity 96.2%; Pred. No. 1.5e-74;
 Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 QY 1 VRSSRTPSDXPVAVHVNPAEQGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYS 60
 DB 1 VRSSRTPSDXPVAVHVNPAEQGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYS 60
 QY 61 QVLFKGGQCPSTHLLTHTTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYVL 120
 DB 61 QVLFKGGQCPSTHLLTHTTISRIAVSYQTKVNLLSAIXSPCQRETPGGAAXPWYEPYVL 120
 QY 121 GGVFQLEKGDRLSASINRPDYLDFAESGQVYFGIALL 157
 DB 121 GGVFQLEKGDRLSASINRPDYLDFAESGQVYFGIALL 157
 RESULT 13
 AAW28530
 ID AAW28530 standard; protein; 157 AA.
 AC AAW28530;
 XX 25-MAR-2003 (revised)
 DT 11-JAN-1998 (first entry)
 XX Human TNF.
 XX TNF; tumour necrosis factor; Crohn's disease; cA2 antibody.
 XX Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Region 11..13
 FT /label= epitope
 FT Region 37..42
 FT /label= epitope
 FT Region 49..57
 FT /label= epitope
 FT Region 59..80
 FT /label= epitope
 FT Region 87..108
 FT /label= epitope
 FT Region 155..157
 FT /label= epitope
 FT
 FT US5656272-A.
 FT 12-AUG-1997.
 FT 04-FEB-1994; 94US-00192102.
 FT 18-MAR-1991; 91US-00670827.
 FT 18-MAR-1992; 92US-00853606.
 FT 11-SEP-1992; 92US-00943852.
 FT 26-JAN-1993; 93US-00010406.
 FT 02-FEB-1993; 93US-00013413.
 FT (CENZ) CENTOCOR INC.
 FT PA (UNYV-) UNIV NEW YORK MEDICAL CENT.
 FT XX
 FT Dadonna P, Le J, Ghayeb J, Knight D, Siegel SA, Vilcek J;
 FT WPI; 1997-414547/38.
 FT XX

PT Treatment of Crohn's disease - by administering humanised cA2 antibody
 XX specific for tumour necrosis factor.
 PS Claim 4 and 6; Fig 13; 87pp; English.
 XX An anti-TNF chimeric antibody may be administered for treating TNF-alpha
 CC mediated Crohn's disease in a human. The anti-TNF chimeric antibody
 CC competitively inhibits binding of TNF to monoclonal antibody cA2. The
 CC anti-TNF antibody does not bind to one or more epitopes in amino acids 11
 CC -13, 37-42, 49-57 or 155-157 of hTNF, but does bind to one or more
 CC epitopes included in amino acids between 87-108 or both 87-108 and 59-80
 CC of hTNF. (Updated on 25-MAR-2003 to correct PF field.)
 XX
 SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
 Best Local Similarity 96.2%; Pred. No. 1.5e-74;
 Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 QY 1 VRSSRTSPDKPVAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
 DB 1 VRSSRTSPDKPVAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
 QY 61 QVLFKGGCPSHTVLLTHTTISRIVSYQTKVNLLSAIXSPCQRTPEGAAXPWYEPYIL 120
 DB 61 QVLFKGGCPSHTVLLTHTTISRIVSYQTKVNLLSAIXSPCQRTPEGAAXPWYEPYIL 120
 QY 121 GGVFQLEKGRDLSAEINRPDYLDPAESGVYFGIIAL 157
 DB 121 GGVFQLEKGRDLSAEINRPDYLDPAESGVYFGIIAL 157

RESULT 14
 AA40819
 ID AA40819 standard; peptide; 157 AA.
 XX
 AC AA40819;
 XX
 DT 02-APR-1998 (first entry)
 XX
 DE Human tumour necrosis factor.
 XX
 KW Tumour necrosis factor; human; hTNF; rheumatoid arthritis; malignancy;
 KW anti-TNF chimeric antibody; inhibitor; therapy; diagnosis; infection;
 KW chronic inflammatory disease; autoimmune disease;
 KW neurodegenerative disease.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 59..80
 FT /note= "epitope recognised by antibody of the invention"
 FT Misc-difference 87..108
 FT /note= "epitope recognised by antibody of the invention"
 FT
 XX
 PN US5698195-A.
 XX
 PD 16-DEC-1997.
 XX
 XX 18-OCT-1994; 94US-00324799.
 XX
 PR 18-MAR-1991; 91US-00670827.
 PR 18-MAR-1992; 92US-00853606.
 PR 11-SEP-1992; 92US-00943852.
 PR 29-JAN-1993; 93US-00010406.
 PR 02-FEB-1993; 93US-00013413.
 PR 04-FEB-1994; 94US-00192061.
 PR 04-FEB-1994; 94US-00192093.
 PR 04-FEB-1994; 94US-00192102.
 XX
 (CENZ) CENTOCOR INC.
 PA (UANY-) UNIV NEW YORK MEDICAL CENT.
 XX

PI Siegel S, Knight D, Wilcek J, Ghayeb J, Le J, Daddona P;
 XX WPI; 1998-051431/05.
 XX
 PT Treatment of rheumatoid arthritis - with chimeric antibody directed
 PT against tumour necrosis factor.
 PS Claim 3; Col 97-100; 93pp; English.
 XX
 CC This sequence represents the human tumour necrosis factor (hTNF).
 CC Epitopes of this sequence are recognised by the antibody used in the
 CC method of the invention. The method of the invention is for treating
 CC rheumatoid arthritis in a human, and comprises administering to the human
 CC an effective TNF-inhibiting amount of an anti-TNF chimeric antibody (Ab),
 CC where the anti-TNF chimeric Ab comprises a non-human variable region or a
 CC TNF antigen binding portion of the variable region, and a human constant
 CC region. The method can be used for in vitro, in situ and/or in vivo
 CC diagnosis and/or treatment of animal cells, tissues or pathologies
 CC associated with the presence of TNF. The Abs used in the method can also
 CC be used for removing TNF from a solution or cells, inhibiting one or more
 CC biological activities of TNF in vitro, in situ or in vitro. Such removal
 CC can include treatment methods of the invention for alleviating symptoms
 CC or pathologies involving TNF, such as bacterial, viral or parasitic
 CC infections, chronic inflammatory diseases, autoimmune diseases,
 CC malignancies and/or neurodegenerative diseases
 XX
 SQ Sequence 157 AA;

Query Match 99.2%; Score 774; DB 2; Length 157;
 Best Local Similarity 96.2%; Pred. No. 1.5e-74;
 Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
 QY 1 VRSSRTSPDKPVAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
 DB 1 VRSSRTSPDKPVAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
 QY 61 QVLFKGGCPSHTVLLTHTTISRIVSYQTKVNLLSAIXSPCQRTPEGAAXPWYEPYIL 120
 DB 61 QVLFKGGCPSHTVLLTHTTISRIVSYQTKVNLLSAIXSPCQRTPEGAAXPWYEPYIL 120
 QY 121 GGVFQLEKGRDLSAEINRPDYLDPAESGVYFGIIAL 157
 DB 121 GGVFQLEKGRDLSAEINRPDYLDPAESGVYFGIIAL 157

RESULT 15
 ABB08912
 ID ABB08912 standard; protein; 157 AA.
 XX
 AC ABB08912;
 XX
 DT 16-JUL-2002 (first entry)
 XX
 DE Human tumour necrosis factor (TNF) beta-sheet forming portion.
 XX
 KW Human; TNF; tumour necrosis factor; beta-sheet; fusion protein;
 KW recombinant production; Escherichia coli; TNF fusion vector; p77-T150;
 KW p77-T57.
 XX
 OS Homo sapiens.
 XX
 PN KR133475-B1.
 XX
 PD 21-APR-1998.
 XX
 PF 04-APR-1994; 94KR-00007018.
 XX
 PR 04-APR-1994; 94KR-00007018.
 XX
 XX (HANI-) HANIL SYNTHETIC FIBER CO LTD.
 XX
 XX Shin H, Jang S, Kim D, Kang S;
 XX

DR WPI; 1999-617508/53.
XX
PT USE OF BETA-SHEET FORMING AMINO ACID LEADER SEQUENCE FOR THE PRODUCTION
OF PROTEINS.
XX
PS
XX Claim 1; Page 9; 14pp; Korean.
XX
CC The invention relates to a method for the recombinant production of
proteins, involving the fusion of a leader sequence capable of forming a
beta-sheet to a desired protein. In particular, a protein of interest is
expressed in *Escherichia coli* as a fusion with a beta-sheet forming
portion of human tumour necrosis factor (TNF; see ABB08912), and the TNF
fusion vectors pT7-T150 and pT7-T57 are used to accomplish this. The
present sequence represents a portion of human TNF specifically claimed
for use in the method of the invention
XX
SQ Sequence 157 AA;
Query Match 99.2%; Score 774; DB 2; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.5e-74;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
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DB 1 VRSSSRTPSDKPVAHVVANPQAEGLQWLNRRANALLANGVELRDNLVVPSEGLYLYS 60
QY 61 QVLFKGGCGPSTHVLTHTISRIVSYQTKVNLLSAIXSPCQRETPEGAEKFWYEPYIL 120
DB 61 QVLFKGGCGPSTHVLTHTISRIVSYQTKVNLLSAIXSPCQRETPEGAEKFWYEPYIL 120
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DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGGVYFGIIAL 157

Search completed: April 3, 2006, 08:22:09
Job time : 193 secs

GenCore version 5.1.7
Copyright (c) 1993 - 2006 Bioceleration Ltd.

OM protein - protein search, using sw model

Run on: April 3, 2006, 08:21:30 ; Search time 22 Seconds
(without alignments)
590.004 Million cell updates/sec

Title: US-10-668-178-2

Perfect score: 780

Sequence: 1 VRSSRRPSPXPAHVAVNP.....RPYLDPAESGQVFGIALL 157

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Issued Patents AA:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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3	774	99.2	157	1	US-08-107-235-1
4	774	99.2	157	1	US-08-217-529-2
5	774	99.2	157	1	US-08-318-193-86
6	774	99.2	157	1	US-08-397-470-1
7	774	99.2	157	1	US-08-192-102-1
8	774	99.2	157	1	US-08-324-799-1
9	774	99.2	157	1	US-08-538-875-1
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57	774	99.2	233	2	US-09-507-568D-3	Sequence 3, Appl
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99	760	97.4	163	1	US-07-994-469A-64	Sequence 64, Appl
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ALIGNMENTS

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RESULT 1
US-07-794-400-1
; Sequence 1, Application US/07794400
; Patent No. 5422104
; GENERAL INFORMATION:
; APPLICANT: Fiers, W.
; APPLICANT: Tavernier, J.
; APPLICANT: Van Ostade, X.
; TITLE OF INVENTION: TNF-Mutins
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/794,400
; FILING DATE: 19911120
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: EP 90810901.0
; FILING DATE: 21-NOV-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Krovatin, William
; REGISTRATION NUMBER: 33256
; REFERENCE/DOCKET NUMBER: 4105/136-00
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4387
; TELEFAX: (201) 235-3500
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; TISSUE TYPE: Blood
; CELL TYPE: Macrophage
US-07-794-400-1

Query Match          99.2%; Score 774; DB 1; Length 157;
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RESULT 2
US-08-041-648-2
; Sequence 2, Application US/08041648
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; Patent No. 5486463
; GENERAL INFORMATION:
; APPLICANT: Lesslauer, Werner
; APPLICANT: L tscher, Hansruedi
; APPLICANT: St ber, Dietrich
; TITLE OF INVENTION: TNF-MUTEINS
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: George W. Gould, Esq., Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: U.S.A.
; ZIP: 07110-1199
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/041,648
; FILING DATE: 1-APR-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: EP 92810249.0
; FILING DATE: 2-APR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Roseman, Catherine R.
; REGISTRATION NUMBER: 34240
; REFERENCE/DOCKET NUMBER: RAN 4105/147
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-6208
; TELEFAX: (201) 235-3500
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-041-648-2

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Best Local Similarity 96.2%; Pred. No. 1.1e-78;
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RESULT 3
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; Sequence 1, Application US/08107235
; Patent No. 5587457
; GENERAL INFORMATION:
; APPLICANT: Rathjen, Deborah A
; APPLICANT: Ferrante, Antonio
; APPLICANT: Widmer, Fred
; TITLE OF INVENTION: Neutrophil Stimulating Peptides
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Allegretti & Witcoff, Ltd.
; STREET: 10 S. Wacker Dr.
; CITY: Chicago
; STATE: Illinois
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COUNTRY: USA
ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/107,235
FILING DATE: 16-AUG-1993
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,415
FILING DATE: 12-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: McDonnell, John J
REGISTRATION NUMBER: 26,949
REFERENCE/DOCKET NUMBER: 92,622A
TELEPHONE: 312-715-1000
TELEFAX: 312-715-1234
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
NAME/KEY: Peptide
LOCATION: 1-157
OTHER INFORMATION: /note= "HUMAN TNF")
US-08-107-235-1

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

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RESULT 4
US-08-217-529-2
Sequence 2, Application US/08217529
Patent No. 5597899
GENERAL INFORMATION:
APPLICANT: Banner, David
APPLICANT: Lesslauer, Werner
APPLICANT: Lotscher, Hansreudi
APPLICANT: Stuber, Dietrich
TITLE OF INVENTION: Tumor Necrosis Factor Muteins
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESS: George M. Gould, Esq., Hoffmann-La Roche Inc.
STREET: 340 Kingland Street
CITY: Nutley
STATE: New Jersey
COUNTRY: U.S.
ZIP: 07110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/217,529
FILING DATE: 24-MAR-1994
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 9381024.1
FILING DATE: 29-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Roseman, Catherine R
REGISTRATION NUMBER: 34240
REFERENCE/DOCKET NUMBER: 4105/155
TELECOMMUNICATION INFORMATION:
TELEPHONE: (201) 235-6208
TELEFAX: (201) 235-3500
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-217-529-2

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

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Db 61 QVLFKGGCGPSTHLLTHTTSRIASVYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGRLSAENRPDYLDPAESGQVYFGIIL 157
Db 121 GGVFQLEKGRLSAENRPDYLDPAESGQVYFGIIL 157

RESULT 5
US-08-318-193-86
Sequence 86, Application US/08318193
Patent No. 5641663
GENERAL INFORMATION:
APPLICANT: GARVIN, Robert T.
APPLICANT: MALEK, Lawrence T.
TITLE OF INVENTION: AN EXPRESSION SYSTEM FOR THE SECRETION
TITLE OF INVENTION: OF BIOACTIVE HUMAN GRANULOCYTE MACROPHAGE COLONY
TITLE OF INVENTION: STIMULATING FACTOR (GM-CSF) AND OTHER HETEROLOGOUS
TITLE OF INVENTION: PROTEINS FROM STREPTOMYCES
NUMBER OF SEQUENCES: 91
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 1800 Diagonal Road, Suite 500
CITY: Alexandria
STATE: Virginia
COUNTRY: USA
ZIP: 22313-0299
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/318,193
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,314
FILING DATE:
APPLICATION NUMBER: US 07/224,568
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.

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; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 18740/116 CACO
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; 4 TELEFAX: (703)693-4109
;
; TELE: 899149
; INFORMATION FOR SEQ ID NO: 86:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-318-193-86

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Best Local Similarity	96.2%;	Pred. 1.1e-78;		
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RESULT 6
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; Sequence 1, Application US/08397470
; Patent No. 5652353
; GENERAL INFORMATION:
; APPLICANT: Fiers, W.
; APPLICANT: Tavernier, J.
; APPLICANT: Van Ostade, X.
; TITLE OF INVENTION: TNF-Mutains
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hoffmann-La Roche Inc.
; STREET: 340 Kingsland Street
; CITY: Nutley
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
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; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/397,470
; FILING DATE: 01-MAR-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/794,400
; FILING DATE: 20-NOV-1991
; APPLICATION NUMBER: EP 90810901.0
; FILING DATE: 21-NOV-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Krovatin, William
; REGISTRATION NUMBER: 33256
; REFERENCE/DOCKET NUMBER: 4105/136-00
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 235-4387
; TELEFAX: (201) 235-3500
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid

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; TOPOLOGY: linear
; MOLECULE TYPE: protein
; ORIGINAL SOURCE:
; ORGANISM: Homo sapiens
; TISSUE TYPE: Blood
; CELL TYPE: Macrophage
US-08-397-470-1

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0

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Db 1 VRSSRTPSDPKPAHVVANPQAEQOLWLRANRANALLANGVELRDNLVWPSEGLYLIYS 60
Qy 61 QVLFKGGGCSPTHVLLTHTTISRIAVSQTQVNLLSAIXSPCQRETPEGAEXPMVEPIYL 120
Db 61 QVLFKGGGCSPTHVLLTHTTISRIAVSQTQVNLLSAIXSPCQRETPEGAEXPMVEPIYL 120
Qy 121 GGVFQLEKGDRLSABINRPDYLDPAESGVYFGIIAL 157
Db 121 GGVFQLEKGDRLSABINRPDYLDPAESGVYFGIIAL 157

RESULT 7
US-08-192-102-1
; Sequence 1, Application US/08192102
; Patent No. 5656272
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter E.
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott A.
; TITLE OF INVENTION: ANTI-TNF ANTIBODIES AND ASSAYS EMPLOYING
; TITLE OF INVENTION: ANTI-TNF ANTIBODIES
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
; STREET: Two Militia Drive
; CITY: Lexington
; STATE: Massachusetts
; COUNTRY: USA
; ZIP: 02173
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/192,102
; FILING DATE: 04-FEB-1994
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/192,093
; FILING DATE: 04-FEB-1994
; APPLICATION NUMBER: US 08/013,413
; FILING DATE: 02-FEB-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/010,406
; FILING DATE: 29-JAN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/943,852
; FILING DATE: 11-SEP-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,606
; FILING DATE: 18-MAR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/670,827
; FILING DATE: 18-MAR-1991
; ATTORNEY/AGENT INFORMATION:

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```
; NAME: Brook, David E.
; REGISTRATION NUMBER: 22,592
; REFERENCE/DOCKET NUMBER: NYU93-01M3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 861-6240
; TELEFAX: (617) 861-9540
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-192-102-1

Query Match          99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVVAVNPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVVAVNPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKNLLSAIXSPCQRETPSGAAXPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKNLLSAIXSPCQRETPSGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGQVYFGIALL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGQVYFGIALL 157

RESULT 8
US-08-324-799-1
; Sequence 1, Application US/08324799
; Patent No. 5698195
; GENERAL INFORMATION:
; APPLICANT: Le, Junning
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter E.
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott A.
; TITLE OF INVENTION: ANTI-TNF ANTIBODIES AND PEPTIDES
; TITLE OF INVENTION: OF HUMAN TUMOR NECROSIS FACTOR
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
; STREET: Two Militia Drive
; CITY: Lexington
; STATE: Massachusetts
; COUNTRY: USA
; ZIP: 02173
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/324,799
; FILING DATE: 18-OCT-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/192,093
; FILING DATE: 04-FEB-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/192,102
; FILING DATE: 04-FEB-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/192,861
; FILING DATE: 04-FEB-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/013,413
; FILING DATE: 02-FEB-1993
; PRIOR APPLICATION DATA:
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; APPLICATION NUMBER: US 08/010,406
; FILING DATE: 29-JAN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/943,852
; FILING DATE: 11-SEP-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,606
; FILING DATE: 18-MAR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/670,827
; FILING DATE: 18-MAR-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Brook, David E.
; REGISTRATION NUMBER: 22,592
; REFERENCE/DOCKET NUMBER: NYU93-01M4
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 861-6240
; TELEFAX: (617) 861-9540
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-324-799-1

Query Match          99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVVAVNPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVVAVNPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKNLLSAIXSPCQRETPSGAAXPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTISRIAVSYQTKNLLSAIXSPCQRETPSGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGQVYFGIALL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGQVYFGIALL 157

RESULT 9
US-08-538-875-1
; Sequence 1, Application US/08538875
; Patent No. 5773582
; GENERAL INFORMATION:
; APPLICANT: Shin, Hang-Cheol
; APPLICANT: Shin, Nam-Kyu
; APPLICANT: Lee, Inkyung
; APPLICANT: Kang, Sungzong
; TITLE OF INVENTION: TUMOR NECROSIS FACTOR MUTAINS
; NUMBER OF SEQUENCES: 73
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Shin, Hang-Cheol
; STREET: Jukong Gocheung Apt. 1014-806, Haan-dong
; CITY: Kwangmyung-shi
; STATE: Kyungki-do
; COUNTRY: Republic of Korea
; ZIP: 423-060
; ADDRESSEE: Shin, Nam-Kyu
; STREET: #181-404 Sadang-4-dong, Dongjak-ku
; CITY: Seoul
; STATE:
; COUNTRY: Republic of Korea
; ZIP: 156-094
; ADDRESSEE: Lee, Inkyung
; STREET: 11/2, #302-39 Juan-4-dong, Nam-ku
; CITY: Incheon
; STATE:
; COUNTRY: Republic of Korea
; ZIP: 402-204
```

ADDRESSEE: Kang, Sungzong
STREET: #84-4 Daeshin-dong, Seodaemun-Ku
CITY: Seoul
STATE:
COUNTRY: Republic of Korea
ZIP: 120-160
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette 3.5inch 2.0mb storage
COMPUTER: IBM PC/AT
OPERATING SYSTEM: MS-DOS
SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/538,875
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/193,336
FILING DATE:
APPLICATION NUMBER: KR 93-1751
FILING DATE: 9-FEB-1993
ATTORNEY/AGENT INFORMATION:
NAME:
REGISTRATION NUMBER:
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE:
TELEFAX:
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-538-875-1

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRNALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTPSDKPVAHVANPQAEGLQWLNRRNALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEPWYPIYL 120
DB 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEPWYPIYL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGGVYFGIALL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGGVYFGIALL 157

RESULT 10
US-08-394-600B-17
Sequence 17, Application US/08394600B
Patent No. 5843693
GENERAL INFORMATION:
APPLICANT: Halenbeck, Robert F.
APPLICANT: Jewell, David A.
APPLICANT: Kothe, Kirston E.
APPLICANT: Kriegler, Michael
APPLICANT: Perez, Carl
TITLE OF INVENTION: Compositions for the Inhibition of
TITLE OF INVENTION: Protein Hormone Formation and Uses Thereof
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: McAndrews, Held & Malloy, Ltd.
STREET: 500 West Madison Street, 34th Floor
CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
ZIP: 60661

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/394,600B
FILING DATE: 02/27/95
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Donald J. Pochoipien
REGISTRATION NUMBER: 32,167
REFERENCE/DOCKET NUMBER: 820,005/11850US05
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/707-8889
TELEFAX: 312/707-9155
TELEX:
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-394-600B-17

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRNALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTPSDKPVAHVANPQAEGLQWLNRRNALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEPWYPIYL 120
DB 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEPWYPIYL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGGVYFGIALL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGGVYFGIALL 157

RESULT 11
US-08-500-860A-35
Sequence 35, Application US/08500860A
Patent No. 5891679
GENERAL INFORMATION:
APPLICANT: LUCAS, RUDOLPH
APPLICANT: DE BAETSELIER, PATRICK
APPLICANT: FRANSSEN, LUCIE
APPLICANT: SABLON, ERWIN
TITLE OF INVENTION: TNF-MUTAINS, A PROCESS FOR PREPARING THEM AND
TITLE OF INVENTION: THEIR USE AS ACTIVE SUBSTANCES IN PHARMACEUTICAL COMPOSITIONS
NUMBER OF SEQUENCES: 36
CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHUYE P.C.
STREET: 1100 NORTH GLEBE ROAD
CITY: ARLINGTON
STATE: VIRGINIA
COUNTRY: U.S.A.
ZIP: 22201-4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/500,860A
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: BYRNE, THOMAS E.
REGISTRATION NUMBER: 32,205

REFERENCE/DOCKET NUMBER: 1487-8
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)816-4000
TELEFAX: (703)816-4100
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-500-860A-35

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTISRIASVYQTXVNLISAIKSPCQRETPEGAEAKPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTISRIASVYQTXVNLISAIKSPCQRETPEGAEAKPWYEPYIL 120
Qy 121 GGVFQLEKGRDLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGRDLSAEINRPDYLDFAESGQVYFGIIAL 157

RESULT 12

US-08-192-861A-1
Sequence 1, Application US/08192861A
Patent No. 5919452
GENERAL INFORMATION:
APPLICANT: Le, Junning
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter E.
APPLICANT: Grayeb, John
APPLICANT: Knight, David M.
APPLICANT: Siegel, Scott A.
TITLE OF INVENTION: METHODS OF TREATING TNF-MEDIATED DISEASE USING
TITLE OF INVENTION: CHIMERIC ANTI-TNF ANTIBODIES (As Amended)
NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
STREET: Two Militia Drive
CITY: Lexington
STATE: Massachusetts
COUNTRY: USA
ZIP: 02173
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/192,861A
FILING DATE: 04-FEB-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/013,413
FILING DATE: 02-FEB-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/010,406
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/943,852
FILING DATE: 11-SEP-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/853,606
FILING DATE: 18-MAR-1992
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/670,827
FILING DATE: 18-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Brook, David E.
REGISTRATION NUMBER: NYU93-01M2
REFERENCE/DOCKET NUMBER: NYU93-01M2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (781) 861-6240
TELEFAX: (781) 861-9540
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 157 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-192-861A-1

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVHVNPAQEGQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTISRIASVYQTXVNLISAIKSPCQRETPEGAEAKPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTISRIASVYQTXVNLISAIKSPCQRETPEGAEAKPWYEPYIL 120
Qy 121 GGVFQLEKGRDLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGRDLSAEINRPDYLDFAESGQVYFGIIAL 157

RESULT 13

US-08-600-783-5
Sequence 5, Application US/08600783
Patent No. 5962267
GENERAL INFORMATION:
APPLICANT: SHIN, Hang Cheol
APPLICANT: CHANG, Seung Gu
APPLICANT: KIM, Dae Young
APPLICANT: KIM, Chong Suh
TITLE OF INVENTION: Proinsulin Derivative and Process
TITLE OF INVENTION: for Producing Human Insulin
NUMBER OF SEQUENCES: 36
CORRESPONDENCE ADDRESS:
ADDRESSEE: SHIN, Hang Cheol
STREET: Seangma-Hanshin Apt. 102-1206,
STREET: #245 Cholsan-dong
CITY: Kwangmyung-shi
STATE: Kyungki-do
COUNTRY: Republic of Korea
ZIP: 423-030
ADDRESSEE: CHANG, Seung Gu
STREET: Hyundai Apt. 71-203, Apkujong-dong,
STREET: Kangnam-ku
CITY: Seoul
STATE: Seoul
COUNTRY: Republic of Korea
ZIP: 135-110
ADDRESSEE: KIM, Dae Young
STREET: Sosa Jukong Apt. 108-202, Sosa Bon-dong,
STREET: Sosa-ku
CITY: Bucheon-shi
STATE: Kyungki-do
COUNTRY: Republic of Korea
ZIP: 422-230
ADDRESSEE: KIM, Chong Suh
STREET: Garden Heights Apt. 202-801, #100,
STREET: Hwangkeum-dong, Soosung-ku
CITY: Taegu
STATE: Taegu

```
; COUNTRY: Republic of Korea
; ZIP: 706-040
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy Disk, 3.5 inch, 1.44MB storage
; COMPUTER: IBM PC/AT
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Word Perfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/600,783
; FILING DATE:
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: KR 95-2751
; FILING DATE: 15-FEB-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Shahan Islam
; REGISTRATION NUMBER: 32,507
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 278-1000
; TELEFAX: (212) 953-7249
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-600-783-5

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

QY 61 QVLFEXGCGCPSTHVLTTHTISRIVSVQTKVNLLSAIXSPCORETPEGAEAXPMWYPIYL 120
DB 61 QVLFEXGCGCPSTHVLTTHTISRIVSVQTKVNLLSAIXSPCORETPEGAEAXPMWYPIYL 120

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

RESULT 14
US-08-584-031-13
; Sequence 13, Application US/08584031A
; Patent No. 6030945
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; TITLE OF INVENTION: APO-2 LIGAND
; FILE REFERENCE: 11669.22US03
; CURRENT APPLICATION NUMBER: US/08/584,031A
; CURRENT FILING DATE: 1996-01-09
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 13
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-08-584-031-13

Query Match 99.2%; Score 774; DB 2; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

; COUNTRY: Republic of Korea
; ZIP: 706-040
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy Disk, 3.5 inch, 1.44MB storage
; COMPUTER: IBM PC/AT
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Word Perfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/600,783
; FILING DATE:
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: KR 95-2751
; FILING DATE: 15-FEB-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Shahan Islam
; REGISTRATION NUMBER: 32,507
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 278-1000
; TELEFAX: (212) 953-7249
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-600-783-5

Query Match 99.2%; Score 774; DB 1; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTPSDXPKVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

QY 61 QVLFEXGCGCPSTHVLTTHTISRIVSVQTKVNLLSAIXSPCORETPEGAEAXPMWYPIYL 120
DB 61 QVLFEXGCGCPSTHVLTTHTISRIVSVQTKVNLLSAIXSPCORETPEGAEAXPMWYPIYL 120

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

RESULT 15
US-08-714-960B-1
; Sequence 1, Application US/08714960B
; Patent No. 6121237
; GENERAL INFORMATION:
; APPLICANT: RATHJEN, Deborah A
; APPLICANT: FERRANTE, Antonio
; TITLE OF INVENTION: Neutrophil Stimulating Peptides
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSES: BANNER & WITCOFF, LTD.
; STREET: 10 S. Wacker Drive, Suite 3000
; CITY: Chicago
; STATE: Illinois
; COUNTRY: USA
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 1.44 Mb storage diskette, 3.50 inch
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: IBM compatible PC/MS-DOS
; SOFTWARE: WordPerfect version 6.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/714,960B
; FILING DATE: 17-SEP-1996
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: AU FJ9065
; FILING DATE: 12-MAR-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/AU91/00086
; FILING DATE: 12-MAR-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/930,415
; FILING DATE: 09-NOV-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/107,235
; FILING DATE: 16-AUG-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Resis, Robert H.
; REGISTRATION NUMBER: 32,168
; REFERENCE/DOCKET NUMBER: 92,622-B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312) 715-1000
; TELEFAX: (312) 715-1234
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 157 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Protein
; LOCATION: 1-157
; OTHER INFORMATION: /note= "Human TNF"
; US-08-714-960B-1

Query Match 99.2%; Score 774; DB 2; Length 157;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

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Db	61	QVLFKGGCPSHTVLLTHTTISRIVSYQTXXVNLLSAIXSPCQRETPEGAEAXPWYFIYL	120
Qy	121	GGVFQLEKGDRLSABINRPDYLDFAESGQVYFGIIL	157
Db	121	GGVFQLEKGDRLSABINRPDYLDFAESGQVYFGIIL	157

Search completed: April 3, 2006, 08:22:00
Job time : 23 secs

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GenCore version 5.1.7
 Copyright (c) 1993 - 2006 Bioceleration Ltd.
 OM protein - protein search, using sw model
 Run on: April 3, 2006, 08:22:26 ; Search time 11 Seconds
 (without alignments)
 434.489 Million cell updates/sec

Title: US-10-668-178-2
 Perfect score: 780
 Sequence: 1 VRSSRTPSDXPVNVVNP.....RPDYLPASGVVFGIIAL 157

Scoring table:
 Gapop 10.0 , Gapext 0.5

Searched: 180808 seqs, 30441898 residues

Total number of hits satisfying chosen parameters: 180808

Minimum DB seq length: 0
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 100 summaries

Database : Published Applications AA New:

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- 2: /SIDSS5/ptodata/1/pubpaa/US06_NEW_PUB pep.*
- 3: /SIDSS5/ptodata/1/pubpaa/US07_NEW_PUB pep.*
- 4: /SIDSS5/ptodata/1/pubpaa/PCT_NEW_PUB pep.*
- 5: /SIDSS5/ptodata/1/pubpaa/US05_NEW_PUB pep.*
- 6: /SIDSS5/ptodata/1/pubpaa/US10_NEW_PUB pep.*
- 7: /SIDSS5/ptodata/1/pubpaa/US11_NEW_PUB pep.*
- 8: /SIDSS5/ptodata/1/pubpaa/US60_NEW_PUB pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	774	99.2	157	7	US-11-010-954-1
2	774	99.2	157	7	US-11-053-750-1
3	774	99.2	157	7	US-11-053-749-1
4	774	99.2	157	7	US-11-108-001-12
5	774	99.2	157	7	US-11-170-753-1
6	774	99.2	157	7	US-11-179-359-1
7	774	99.2	157	7	US-11-181-030-1
8	774	99.2	157	7	US-11-182-033-1
9	774	99.2	157	7	US-11-195-589-1
10	774	99.2	158	7	US-11-082-544-4
11	774	99.2	164	7	US-11-108-001-2
12	774	99.2	180	7	US-11-082-544-8
13	765	98.1	157	6	US-10-504-389A-55
14	629.5	80.7	235	7	US-11-032-797-8
15	486	62.3	104	7	US-11-065-669-5
16	209.5	26.9	177	6	US-10-999-866-61
17	209.5	26.9	205	6	US-10-995-561-1028
18	209.5	26.9	205	6	US-10-995-561-1029
19	168.5	21.6	240	7	US-11-136-341A-31
20	168.5	21.6	240	7	US-11-136-341A-1
21	166.5	21.3	179	6	US-10-861-934-14
22	166.5	21.3	240	6	US-10-987-663-6
23	166.5	21.3	278	6	US-10-861-934-16
24	166.5	21.3	278	6	US-10-861-934-26
25	161.5	20.7	137	6	US-10-861-934-10
26	161.5	20.7	137	6	US-10-861-934-12
27	160.5	20.6	179	6	US-10-861-934-22
28	160.5	20.6	279	6	US-10-861-934-24
29	160.5	20.6	279	6	US-10-861-934-32
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32	156.5	20.1	138	6	US-10-861-934-20
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34	152	19.5	359	7	US-11-105-172-2
35	151	19.4	179	6	US-10-861-934-6
36	151	19.4	239	7	US-11-136-341A-3
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38	151	19.4	281	6	US-10-861-934-30
39	151	19.4	281	7	US-11-213-368-11
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46	149.5	19.2	138	6	US-10-861-934-81
47	149.5	19.2	139	6	US-10-861-934-80
48	149.5	19.2	141	6	US-10-861-934-79
49	149	19.1	178	6	US-10-861-934-84
50	148.5	19.0	204	7	US-11-136-341A-32
51	143	18.3	130	6	US-10-861-934-28
52	139	17.8	306	7	US-11-032-797-7
53	120	15.4	316	7	US-11-032-797-4
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56	116	14.9	317	7	US-11-136-079-2
57	113	14.5	102	7	US-11-065-669-7
58	113	14.5	261	7	US-11-136-079-4
59	112	14.4	245	7	US-11-032-797-2
60	104.5	13.4	266	7	US-11-082-544-10
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63	104.5	13.4	281	7	US-11-077-272-2
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66	104.5	13.4	281	7	US-11-221-281-5
67	104.5	13.4	391	7	US-11-105-172-4
68	97.5	12.5	136	7	US-11-084-647-11
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71	97.5	12.5	250	7	US-11-084-647-6
72	97.5	12.5	250	7	US-11-136-079-3
73	97.5	12.5	250	7	US-11-242-294-4
74	97.5	12.5	250	7	US-11-266-444-3239
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93	88.5	11.3	152	6	US-10-742-634-3
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97	88.5	11.3	243	7	US-11-054-515-3236
98	88.5	11.3	243	7	US-11-266-444-3236

Sequence 12, Appl
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 Sequence 24, Appl
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ALIGNMENTS

RESULT 1
US-11-010-954-1
; Sequence 1, Application US/11010954
; Publication No. US20050249735A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; APPLICANT: Shealy, David
; TITLE OF INVENTION: Methods of Treating Ankylosing Spondylitis Using Anti-TNF Antibod
; TITLE OF INVENTION: and Peptides of Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-043
; CURRENT APPLICATION NUMBER: US/11/010,954
; CURRENT FILING DATE: 2004-12-13
; PRIOR APPLICATION NUMBER: US 10/637,759
; PRIOR FILING DATE: 2003-08-08
; PRIOR APPLICATION NUMBER: US 09/920,137
; PRIOR FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: US 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: US 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: US 60/236,826
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: US 60/223,360
; PRIOR FILING DATE: 2000-08-07
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-010-954-1

Query Match 99.2%; Score 774; DB 7; Length 157;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

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US-11-053-750-1
; Sequence 1, Application US/11053750
; Publication No. US20050255104A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; APPLICANT: Scallion, Bernard

; TITLE OF INVENTION: Methods of Treating Psoriasis Using
; TITLE OF INVENTION: Anti-TNF Receptor Fusion Proteins
; FILE REFERENCE: 0975.1005-045
; CURRENT APPLICATION NUMBER: US/11/053,750
; CURRENT FILING DATE: 2005-02-07
; PRIOR APPLICATION NUMBER: U.S. 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 09/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 4.0
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; LENGTH: 157
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; Sequence 1, Application US/11053749
; Publication No. US20050260201A1
; GENERAL INFORMATION:

; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; APPLICANT: Scallion, Bernard
; TITLE OF INVENTION: Methods of Treating Rheumatoid Arthritis
; TITLE OF INVENTION: Using Anti-TNF Receptor Fusion Proteins
; FILE REFERENCE: 0975.1005-040
; CURRENT APPLICATION NUMBER: US/11/053,749
; CURRENT FILING DATE: 2005-02-07
; PRIOR APPLICATION NUMBER: US/09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08

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; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-053-749-1

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Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTSPDXPKVAHVVANPQAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTSPDXPKVAHVVANPQAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

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Db 121 GGVFQLEKGRSLAEINRPDYLDPAESGQVYFGIALL 157

RESULT 4
US-11-108-001-12
; Sequence 12, Application US/11108001
; Publication No. US20050265962A1
; GENERAL INFORMATION:
; APPLICANT: Desjarlais, John R.
; APPLICANT: Steed, Paul Michael
; APPLICANT: Zalevsky, Jonathan
; APPLICANT: Szymkowski, David Edmund
; TITLE OF INVENTION: PROTEIN BASED TNF-ALPHA VARIANTS FOR THE TREATMENT OF TNF-ALPHA
; TITLE OF INVENTION: RELATED DISORDERS
; FILE REFERENCE: A-68990-7
; CURRENT APPLICATION NUMBER: US/11/108,001
; PRIOR FILING DATE: 2005-04-14
; PRIOR APPLICATION NUMBER: US 10/963,994
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: US 09/798,789
; PRIOR FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: US 09/945,150
; PRIOR FILING DATE: 2001-08-31
; PRIOR APPLICATION NUMBER: US 09/981,289
; PRIOR FILING DATE: 2001-10-15
; PRIOR APPLICATION NUMBER: US 10/262,630
; PRIOR FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US 60/553,908
; PRIOR FILING DATE: 2004-03-17
; PRIOR APPLICATION NUMBER: US 60/510,430
; PRIOR FILING DATE: 2003-10-10
; PRIOR APPLICATION NUMBER: US 60/509,960
; PRIOR FILING DATE: 2003-10-09
; PRIOR APPLICATION NUMBER: US 60/528,275
; PRIOR FILING DATE: 2003-12-08
; PRIOR APPLICATION NUMBER: US 60/523,647
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; PRIOR FILING DATE: 2003-11-20
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; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn version 3.3
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; LENGTH: 157
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; ORGANISM: Homo sapiens
US-11-108-001-12

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Best Local Similarity 96.2%; Pred. No. 2.4e-86;
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Db 1 VRSSRTSPDXPKVAHVVANPQAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60

Qy 61 QVLFKGGCPSSTHLLTHTTSRIASVYQTKVNLLSAIXSPCQRTPEGAAXPWYPIYL 120
Db 61 QVLFKGGCPSSTHLLTHTTSRIASVYQTKVNLLSAIXSPCQRTPEGAAXPWYPIYL 120

Qy 121 GGVFQLEKGRSLAEINRPDYLDPAESGQVYFGIALL 157
Db 121 GGVFQLEKGRSLAEINRPDYLDPAESGQVYFGIALL 157

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; Sequence 1, Application US/11170753
; Publication No. US20060013816A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilecek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Chrayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Methods of Treating Psoriasis Using
; TITLE OF INVENTION: Human Anti-TNF Antibodies and Fragments
; FILE REFERENCE: 0975.1005-050
; CURRENT APPLICATION NUMBER: US/11/170,753
; CURRENT FILING DATE: 2005-06-29
; PRIOR APPLICATION NUMBER: U.S. 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
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; NUMBER OF SEQ ID NOS: 30
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; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
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US-11-170-753-1

Query Match          99.2%; Score 774; DB 7; Length 157;
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Best Local Similarity 96.2%; Pred. No. 2.4e-86; Mismatches 0; Indels 0; Gaps 0;
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DB 1 VRSSRTSPDXPVAVHVNPAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120
DB 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157

RESULT 6

US-11-179-359-1
; Sequence 1, Application US/11179359
; Publication No. US20060018905A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Methods for Treating Systemic Lupus Erythematosus
; TITLE OF INVENTION: Using Anti-TNF Antibodies and Fragments Thereof
; FILE REFERENCE: 0975.1005-054
; CURRENT APPLICATION NUMBER: US/11/179,359
; CURRENT FILING DATE: 2005-07-12
; PRIOR APPLICATION NUMBER: U.S. 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; Remaining Prior Application data removed - See File Wrapper or PALM.
; SOFTWARE: FastSeq for Windows Version 4.0
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-179-359-1

Query Match 99.2%; Score 774; DB 7; Length 157;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXPVAVHVNPAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTSPDXPVAVHVNPAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120
DB 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
RESULT 7
US-11-181-030-1
; Sequence 1, Application US/11181030
; Publication No. US20060018906A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Methods for Treating Sarcoidosis Using
; TITLE OF INVENTION: Anti-TNF Antibodies and Fragments Thereof
; FILE REFERENCE: 0975.1005-055
; CURRENT APPLICATION NUMBER: US/11/181,030
; CURRENT FILING DATE: 2005-07-13
; PRIOR APPLICATION NUMBER: U.S. 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; Remaining Prior Application data removed - See File Wrapper or PALM.
; SOFTWARE: FastSeq for Windows Version 4.0
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-181-030-1
Query Match 99.2%; Score 774; DB 7; Length 157;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 VRSSRTSPDXPVAVHVNPAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
DB 1 VRSSRTSPDXPVAVHVNPAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120
DB 61 QVLFKGGCPSHTVLLTHTISRIASVYQTKVNLLSAIXSPCQRETPEGAAXPWYEPYIL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
DB 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
RESULT 8
US-11-182-033-1
; Sequence 1, Application US/11182033
; Publication No. US20060018907A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming

APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Grayeb, John
APPLICANT: Knight, David
APPLICANT: Siegel, Scott
APPLICANT: Shealy, David
TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of Human
TITLE OF INVENTION: Tumor Necrosis Factor
FILE REFERENCE: 0975.1005-044
CURRENT FILING DATE: 2005-07-14
PRIOR APPLICATION NUMBER: US/11/182,033
PRIOR FILING DATE: 2003-08-08
PRIOR APPLICATION NUMBER: US 09/920,137
PRIOR FILING DATE: 2001-08-01
PRIOR APPLICATION NUMBER: US 09/927,703
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: US 09/756,398
PRIOR FILING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: US 60/236,826
PRIOR FILING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: US 60/223,360
PRIOR FILING DATE: 2000-08-07
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 157
TYPE: PRT
ORGANISM: Homo sapiens
US-11-182-033-1

Query Match 99.2%; Score 774; DB 7; Length 157;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDXPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGGCPSTHLLTHTTSRIASVYQTKVNLISALXSPCQRTPEGAEXPMWYPIYL 120
Db 61 QVLFKGGGCPSTHLLTHTTSRIASVYQTKVNLISALXSPCQRTPEGAEXPMWYPIYL 120
Qy 121 GGVFQLEKGRLSAEINRPDYLDPAESGQVYFGIALL 157
Db 121 GGVFQLEKGRLSAEINRPDYLDPAESGQVYFGIALL 157

RESULT 9
US-11-195-589-1
Sequence 1, Application US/11/195589
Publication No. US20060024310A1
GENERAL INFORMATION:
APPLICANT: Vilcek, Jan
APPLICANT: Daddona, Peter
APPLICANT: Grayeb, John
APPLICANT: Knight, David
APPLICANT: Siegel, Scott
TITLE OF INVENTION: Methods of Treating TNFa-Mediated
TITLE OF INVENTION: Tissue Injury Using Anti-TNF Antibodies and Peptides
FILE REFERENCE: 0975.1005-042
CURRENT APPLICATION NUMBER: US/11/195,589
CURRENT FILING DATE: 2005-08-02
PRIOR APPLICATION NUMBER: US 09/927,703
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: US 09/756,398
PRIOR FILING DATE: 2001-01-08
PRIOR APPLICATION NUMBER: US 09/133,119
PRIOR FILING DATE: 1998-08-12
PRIOR APPLICATION NUMBER: US 08/570,674
PRIOR FILING DATE: 1995-12-11
PRIOR APPLICATION NUMBER: US 08/324,799

PRIOR FILING DATE: 1994-10-18
PRIOR APPLICATION NUMBER: US 08/192,102
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: US 08/192,861
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: US 08/192,093
PRIOR FILING DATE: 1994-02-04
PRIOR APPLICATION NUMBER: US 08/010,406
PRIOR FILING DATE: 1993-01-29
PRIOR APPLICATION NUMBER: US 08/013,413
PRIOR FILING DATE: 02-02-1993
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 157
TYPE: PRT
ORGANISM: Homo sapiens
US-11-195-589-1

Query Match 99.2%; Score 774; DB 7; Length 157;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDXPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGGCPSTHLLTHTTSRIASVYQTKVNLISALXSPCQRTPEGAEXPMWYPIYL 120
Db 61 QVLFKGGGCPSTHLLTHTTSRIASVYQTKVNLISALXSPCQRTPEGAEXPMWYPIYL 120
Qy 121 GGVFQLEKGRLSAEINRPDYLDPAESGQVYFGIALL 157
Db 121 GGVFQLEKGRLSAEINRPDYLDPAESGQVYFGIALL 157

RESULT 10
US-11-082-544-4
Sequence 4, Application US/11/082544
Publication No. US20050249706A1
GENERAL INFORMATION:
APPLICANT: Bernudes, G.
APPLICANT: King, I.
APPLICANT: Clairmont, C.
APPLICANT: Lin, S.
APPLICANT: Belcourt, M.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: TUMOR-TARGETED DELIVERY OF EFFECTOR MOLECULES
FILE REFERENCE: 8002-059
CURRENT APPLICATION NUMBER: US/11/082,544
CURRENT FILING DATE: 2005-03-17
PRIOR APPLICATION NUMBER: US/09/645,415
PRIOR FILING DATE: 2000-08-24
PRIOR APPLICATION NUMBER: 60/157,581
PRIOR FILING DATE: 1999-10-04
PRIOR APPLICATION NUMBER: 60/157,637
PRIOR FILING DATE: 1999-10-04
NUMBER OF SEQ ID NOS: 61
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 4
LENGTH: 158
TYPE: PRT
ORGANISM: Homo sapiens
US-11-082-544-4

Query Match 99.2%; Score 774; DB 7; Length 158;
Best Local Similarity 96.2%; Pred. No. 2.4e-86;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDXPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 2 VRSSRTPSDKPKVAHVYVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 61

Qy	61	QVLFXQGGCPSTHVLTLTHTSIRIAVS	YQTKNVLSA	KSPCQRETP	PGAEPY	EIYL	120
Db	62	QVLFKQGGCPSTHVLTLTHTSIRIAVS	YQTKNVLSA	KSPCQRETP	PGAEPY	EIYL	121
Qy	121	GGVQLQEXGDRLSA	INPDYLDFAES	GVYFGI	AL	157	
I4	122	GGVQLQEKGDRLSA	INPDYLDFAES	GVYFGI	AL	158	

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RESULT 11
US-11-108-001-2
; Sequence 2, Application US/11108001
; Publication No. US20050265962A1
; GENERAL INFORMATION:
; APPLICANT: Desjarlais, John R.
; APPLICANT: Steed, Paul Michael
; APPLICANT: Zalevsky, Jonathan
; APPLICANT: Szymkowski, David Edmund
; TITLE OF INVENTION: PROTEIN BASED TNF-ALPHA VARIANTS FOR THE TREATMENT OF TNF-ALPHA
; TITLE OF INVENTION: RELATED DISORDERS
; FILE REFERENCE: A-68990-7
; CURRENT APPLICATION NUMBER: US/11/108,001
; CURRENT FILING DATE: 2005-04-14
; PRIOR APPLICATION NUMBER: US 10/963,994
; PRIOR FILING DATE: 2004-10-12
; PRIOR APPLICATION NUMBER: US 09/798,789
; PRIOR FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: US 09/945,150
; PRIOR FILING DATE: 2001-08-31
; PRIOR APPLICATION NUMBER: US 09/981,289
; PRIOR FILING DATE: 2001-10-15
; PRIOR APPLICATION NUMBER: US 10/262,630
; PRIOR FILING DATE: 2002-09-30
; PRIOR APPLICATION NUMBER: US 60/553,908
; PRIOR FILING DATE: 2004-03-17
; PRIOR APPLICATION NUMBER: US 60/510,430
; PRIOR FILING DATE: 2003-10-10
; PRIOR APPLICATION NUMBER: US 60/509,960
; PRIOR FILING DATE: 2003-10-09
; PRIOR APPLICATION NUMBER: US 60/528,275
; PRIOR FILING DATE: 2003-12-08
; PRIOR APPLICATION NUMBER: US 60/523,647
; PRIOR FILING DATE: 2003-11-20
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
; LENGTH: 164
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-108-001-2

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RESULT 12
US-11-082-544-8
; Sequence 8, Application US/11082544

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; Publication No. US20050249706A1
;
; GENERAL INFORMATION:
;
;   APPLICANT: Bermudes, G.
;   APPLICANT: King, I.
;   APPLICANT: Clairmont, C.
;   APPLICANT: Lin, S.
;   APPLICANT: Belcourt, M.
;
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
;
; TITLE OF INVENTION: TUMOR-TARGETED DELIVERY OF EFFECTOR MOLECULES
;
; FILE REFERENCE: 8002-059
;
; CURRENT APPLICATION NUMBER: US/11/082,544
;
; CURRENT FILING DATE: 2005-03-17
;
; PRIOR APPLICATION NUMBER: US/09/645,415
;
; PRIOR FILING DATE: 2000-08-24
;
; PRIOR APPLICATION NUMBER: 60/157,581
;
; PRIOR FILING DATE: 1999-10-04
;
; PRIOR APPLICATION NUMBER: 60/157,637
;
; PRIOR FILING DATE: 1999-10-04
;
; NUMBER OF SEQ ID NOS: 61
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; SOFTWARE: FastSeq for Windows Version 3.0
;
; SEQ ID NO 8
;
; LENGTH: 180
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; TYPE: PRT
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; ORGANISM: Artificial Sequence
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; FEATURE:
;
;   OTHER INFORMATION: Fusion construct
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; US-11-082-544-8

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RESULT 13
US-10-504-389A-55
; Sequence 55, Application US/10504389A
; Publication No. US20060045876A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Christoph
; APPLICANT: Scott, Andrew
; TITLE OF INVENTION: FUSION PROTEINS OF HUMANIZED G250 SPECIFIC
; TITLE OF INVENTION: ANTIBODIES AND USES THEREOF
; FILE REFERENCE: LUD 5821
; CURRENT APPLICATION NUMBER: US/10/504,389A
; CURRENT FILING DATE: 2004-08-10
; PRIOR APPLICATION NUMBER: PCT/US03/04243
; PRIOR FILING DATE: 2002-02-12
; NUMBER OF SEQ ID NOS: 56
; SEQ ID NO 55
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: amino acid sequence of a TNF fragment
US-10-504-389A-55

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Query Match      98.1%; Score 765; DB 6; Length 157;
Best Local Similarity 96.1%; Pred. No. 2.9e-85;
Matches 149; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 3 SSSRTPDXFVAHVANPQAGQOLWLNRRANALLANGVELRNOILVVPSEGLYLIYSOV 62

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Db 3 SSSRTPSDKPVAVHVNPAQEGQLNRRNALLANGVELRDQLVVPSEGLYLYSQV 62
Qy 63 LFXGQGPCSTHVLTTHTISRIAVSYQTXVNLSSAIXSPCQRETPEGAEXAPWYEPYIYL 122
Db 63 LFXGQGPCSTHVLTTHTISRIAVSYQTXVNLSSAIXSPCQRETPEGAEXAPWYEPYIYL 122
Qy 123 VFQLEKGDRLSAEINRPDYLDPAESGQVYFGIIAL 157
Db 123 VFQLEKGDRLSAEINRPDYLDPAESGQVYFGIIAL 157

RESULT 14
US-11-032-797-8
; Sequence 8, Application US/11032797
; Publication No. US20050287545A1
; GENERAL INFORMATION:
; APPLICANT: Choi, Yongwon
; APPLICANT: Wong, Brian
; APPLICANT: Josien, Regis
; APPLICANT: Steinman, Ralph
; TITLE OF INVENTION: A PROTEIN BELONGING TO THE TNF SUPERFAMILY
; TITLE OF INVENTION: INVOLVED IN SIGNAL TRANSDUCTION, NUCLEIC ACIDS ENCODING SAME,
; TITLE OF INVENTION: METHODS OF USE THEREOF
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Klauber & Jackson
; STREET: 411 Hackensack Avenue, 4th Floor
; CITY: Hackensack
; STATE: New Jersey
; COUNTRY: USA
; ZIP: 07601
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/11/032,797
; FILING DATE: 11-JAN-2005
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/873,829
; FILING DATE: 04-Jun-2001
; APPLICATION NUMBER: 09/210,115
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Jackson Esq., David A.
; REGISTRATION NUMBER: 26,742
; REFERENCE/DOCKET NUMBER: 600-1-200 CIP N
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201-487-5800
; TELEFAX: 201-343-1684
; TELEX: 133521
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 235 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Mus musculus
US-11-032-797-8

Query Match 80.7%; Score 629.5; DB 7; Length 235;
Best Local Similarity 75.2%; Pred. No. 1.3e-68;
Matches 118; Conservative 20; Mismatches 18; Indels 1; Gaps 1;
Qy 1 VRSSRTPSDKPVAVHVNPAQEGQLNRRNALLANGVELRDQLVVPSEGLYLYSQV 60
Db 80 LRSSSQNSDKPVAVHVNPAQEGQLNRRNALLANGVELRDQLVVPSEGLYLYSQV 139

Qy 61 QVLFXGQGPCSTHVLTTHTISRIAVSYQTXVNLSSAIXSPCQRETPEGAEXAPWYEPYIYL 120
Db 140 QVLFXGQGPCD-VVLLTHTVSRPAISYQKVNLLSAVKSFCPNDTPGAEALKPWYEPYIYL 198
Qy 121 GGVFOLEKGDRLSAEINRPDYLDPAESGQVYFGIIAL 157
Db 199 GGVFOLEKGDRLSAEINRPDYLDPAESGQVYFGIIAL 235

RESULT 15
US-11-065-669-5
; Sequence 5, Application US/11065669
; Publication No. US2005024411A1
; GENERAL INFORMATION:
; APPLICANT: MacKay, Fabienne
; APPLICANT: Kalled, Susan
; TITLE OF INVENTION: BAFF, INHIBITORS THEREOF AND THEIR USE IN THE
; TITLE OF INVENTION: MODULATION OF B-CELL RESPONSE
; FILE REFERENCE: 08201.0024-04000
; CURRENT APPLICATION NUMBER: US/11/065,669
; CURRENT FILING DATE: 2005-02-24
; PRIOR APPLICATION NUMBER: 10/045,574
; PRIOR FILING DATE: 2001-11-07
; PRIOR APPLICATION NUMBER: 09/911,777
; PRIOR FILING DATE: 2001-07-24
; PRIOR APPLICATION NUMBER: 60/143,228
; PRIOR FILING DATE: 2001-07-09
; PRIOR APPLICATION NUMBER: PCT/US00/01788
; PRIOR FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 60/117,169
; PRIOR FILING DATE: 1999-01-25
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
; LENGTH: 104
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-065-669-5

Query Match 62.3%; Score 486; DB 7; Length 104;
Best Local Similarity 72.5%; Pred. No. 1.2e-51;
Matches 100; Conservative 0; Mismatches 4; Indels 34; Gaps 2;
Qy 9 SDXPVAVHVNPAQEGQLNRRNALLANGVELRDQLVVPSEGLYLYSQVLFKQGG 68
Db 1 SDKPVAVHVNPAQEGQLNRRNALLANGVELRDQLVVPSEGLYLYSQVLFKQGG 43
Qy 69 CPSTHVLTTHTISRIAVSYQTXVNLSSAIXSPCQRETPEGAEXAPWYEPYIYLGGVFOLEX 128
Db 44 CPSTHVLTTHTISRIAVSYQTXVNLSSAIXSPCQRETPEGAEXAPWYEPYIYLGGVFOLEX 86
Qy 129 GDRLSAEINRPDYLDPAE 146
Db 87 GDRLSAEINRPDYLDPAE 104

Search completed: April 3, 2006, 08:22:44
Job time: 12 secs

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OM protein - protein search, using sw model

Run on: April 3, 2006, 08:22:16 ; Search time 50 Seconds
(without alignments)
1311.984 Million cell updates/sec

Title: US-10-668-178-2

Perfect score: 780

Sequence: 1 VRSSRRPSDPVAVHVNPP.....RPDYLDFAESQVFGIALL 157

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Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Published Applications AA_Main.*

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2: /cgn2_6/ptodata/1/pubaa/US08_PUBCOMB.pep.*

3: /cgn2_6/ptodata/1/pubaa/US09_PUBCOMB.pep.*

4: /cgn2_6/ptodata/1/pubaa/US10A_PUBCOMB.pep.*

5: /cgn2_6/ptodata/1/pubaa/US10B_PUBCOMB.pep.*

6: /cgn2_6/ptodata/1/pubaa/US11_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	778	99.7	157	5	US-10-668-178-15
2	778	99.7	157	5	US-10-668-178-16
3	774	99.2	157	3	US-08-756-301A-1
4	774	99.2	157	3	US-09-927-703-1
5	774	99.2	157	3	US-09-854-280-19
6	774	99.2	157	3	US-09-934-465-13
7	774	99.2	157	3	US-09-766-535A-1
8	774	99.2	157	3	US-09-854-208-19
9	774	99.2	157	3	US-09-756-161A-1
10	774	99.2	157	3	US-09-903-327A-7
11	774	99.2	157	3	US-09-756-398B-1
12	774	99.2	157	3	US-09-897-724-1
13	774	99.2	157	4	US-10-010-329-1
14	774	99.2	157	4	US-10-043-450-1
15	774	99.2	157	4	US-10-044-534-1
16	774	99.2	157	4	US-10-099-007A-1
17	774	99.2	157	4	US-10-043-432-1
18	774	99.2	157	4	US-10-119-621-1
19	774	99.2	157	4	US-10-208-145-1
20	774	99.2	157	4	US-10-262-630-9
21	774	99.2	157	4	US-10-305-347A-9
22	774	99.2	157	4	US-10-198-845-1
23	774	99.2	157	4	US-10-227-488-1
24	774	99.2	157	4	US-10-170-812-7
25	774	99.2	157	4	US-10-187-121-1
26	774	99.2	157	4	US-10-176-460-1
27	774	99.2	157	4	US-10-176-460-1

28	774	99.2	157	4	US-10-186-559-1	Sequence 1, Appli
29	774	99.2	157	4	US-10-371-961-1	Sequence 1, Appli
30	774	99.2	157	4	US-10-200-795-1	Sequence 1, Appli
31	774	99.2	157	4	US-10-313-011-1	Sequence 1, Appli
32	774	99.2	157	4	US-10-371-443-1	Sequence 1, Appli
33	774	99.2	157	4	US-10-379-866-1	Sequence 1, Appli
34	774	99.2	157	4	US-10-371-962-1	Sequence 1, Appli
35	774	99.2	157	4	US-10-354-985-2	Sequence 2, Appli
36	774	99.2	157	4	US-10-397-786A-1	Sequence 1, Appli
37	774	99.2	157	4	US-10-665-971-1	Sequence 1, Appli
38	774	99.2	157	4	US-10-637-759-1	Sequence 1, Appli
39	774	99.2	157	4	US-10-327-619-1	Sequence 1, Appli
40	774	99.2	157	4	US-10-774-118-1	Sequence 1, Appli
41	774	99.2	157	4	US-10-394-471B-17	Sequence 17, Appli
42	774	99.2	157	5	US-10-861-685-13	Sequence 13, Appli
43	774	99.2	157	5	US-10-668-178-1	Sequence 1, Appli
44	774	99.2	157	5	US-10-668-178-2	Sequence 2, Appli
45	774	99.2	157	5	US-10-957-134-1	Sequence 1, Appli
46	774	99.2	157	5	US-10-727-155-265	Sequence 265, App
47	774	99.2	157	5	US-10-957-549-1	Sequence 1, Appli
48	774	99.2	157	5	US-10-652-979-13	Sequence 13, Appli
49	774	99.2	157	5	US-10-954-900A-9	Sequence 9, Appli
50	774	99.2	157	5	US-10-295-074-17	Sequence 17, Appli
51	774	99.2	158	4	US-10-738-423-4	Sequence 4, Appli
52	774	99.2	158	5	US-10-846-911-17	Sequence 17, Appli
53	774	99.2	158	5	US-10-939-107-28	Sequence 28, Appli
54	774	99.2	158	5	US-10-738-423-8	Sequence 8, Appli
55	774	99.2	164	3	US-09-798-789-2	Sequence 2, Appli
56	774	99.2	164	3	US-09-981-289-2	Sequence 2, Appli
57	774	99.2	164	5	US-10-963-994-2	Sequence 2, Appli
58	774	99.2	173	4	US-10-295-074-28	Sequence 28, Appli
59	774	99.2	173	5	US-10-846-911-28	Sequence 28, Appli
60	774	99.2	173	5	US-10-939-107-28	Sequence 28, Appli
61	774	99.2	180	5	US-10-738-423-8	Sequence 8, Appli
62	774	99.2	193	3	US-09-982-308-3	Sequence 3, Appli
63	774	99.2	193	4	US-10-145-014-3	Sequence 3, Appli
64	774	99.2	233	2	US-08-971-317A-5	Sequence 5, Appli
65	774	99.2	233	3	US-09-193-663-5	Sequence 5, Appli
66	774	99.2	233	3	US-09-879-919-5	Sequence 5, Appli
67	774	99.2	233	3	US-09-782-980-43	Sequence 43, Appli
68	774	99.2	233	3	US-09-840-707A-14	Sequence 14, Appli
69	774	99.2	233	3	US-09-246-129B-3	Sequence 3, Appli
70	774	99.2	233	3	US-09-345-790-3	Sequence 3, Appli
71	774	99.2	233	3	US-09-929-493-3	Sequence 3, Appli
72	774	99.2	233	3	US-09-899-059-3	Sequence 3, Appli
73	774	99.2	233	3	US-09-131-237-3	Sequence 3, Appli
74	774	99.2	233	4	US-10-082-260-5	Sequence 5, Appli
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79	774	99.2	233	4	US-10-174-654-9	Sequence 9, Appli
80	774	99.2	233	4	US-10-151-882-42	Sequence 42, Appli
81	774	99.2	233	4	US-10-038-557A-14	Sequence 14, Appli
82	774	99.2	233	4	US-10-218-547-4	Sequence 4, Appli
83	774	99.2	233	4	US-10-226-294-4	Sequence 4, Appli
84	774	99.2	233	4	US-10-040-281A-20	Sequence 20, Appli
85	774	99.2	233	4	US-10-270-487-3	Sequence 3, Appli
86	774	99.2	233	4	US-10-247-671-182	Sequence 182, App
87	774	99.2	233	4	US-10-310-793-10	Sequence 10, Appli
88	774	99.2	233	4	US-10-279-687-5	Sequence 5, Appli
89	774	99.2	233	4	US-10-397-786A-2	Sequence 2, Appli
90	774	99.2	233	4	US-10-440-464-63	Sequence 63, Appli
91	774	99.2	233	4	US-10-202-062-4	Sequence 4, Appli
92	774	99.2	233	4	US-10-408-765A-1117	Sequence 1117, Ap
93	774	99.2	233	4	US-10-735-865-3	Sequence 3, Appli
94	774	99.2	233	4	US-10-739-042-3	Sequence 3, Appli
95	774	99.2	233	4	US-10-806-018-43	Sequence 43, Appli
96	774	99.2	233	4	US-10-799-345-18	Sequence 18, Appli
97	774	99.2	233	5	US-10-825-282-18	Sequence 18, Appli
98	774	99.2	233	5	US-10-688-845-75	Sequence 75, Appli
99	774	99.2	233	5	US-10-370-715B-20	Sequence 20, Appli
100	774	99.2	233	6	US-11-028-780-4	Sequence 4, Appli

ALIGNMENTS

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; ORGANISM: Artificial
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; FEATURE:
;
; OTHER INFORMATION: synthetic (Variant protein of human tumor necrosis factor)
US-10-668-178-16
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RESULT 1
US-10-668-178-15
Sequence 15, Application US/10668178
Publication No. US20050013795A1
GENERAL INFORMATION:
APPLICANT: KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO
APPLICANT: MATSUMI, Tadanori
APPLICANT: TSUTSUMI, Yasuo
APPLICANT: NAKAGAWA, Shinsaku
APPLICANT: IKEGAMI, Hakuo
TITLE OF INVENTION: Biologically-active conjugate
FILE REFERENCE: MAYUMI2A
CURRENT APPLICATION NUMBER: US/10/668,178
CURRENT FILING DATE: 2003-09-24
PRIOR APPLICATION NUMBER: JP 83509/2002
PRIOR FILING DATE: 2002-03-25
PRIOR APPLICATION NUMBER: JP 185387/2002
PRIOR FILING DATE: 2002-06-26
NUMBER OF SEQ ID NOS: 16
SOFTWARE: PatentIn version 3.3
SEQ ID NO 15
LENGTH: 157
TYPE: PRT
ORGANISM: Artificial
FEATURE:
OTHER INFORMATION: Synthetic Construct
US-10-668-178-15

	Query Match	99.7%	Score 778;	DB 5;	Length 157;
	Best Local Similarity	96.2%;	Pred. No. 3.2e-84;		
	Matches 151;	Conservative 0;	Mismatches 6;	Indels 0;	Gaps 0;
Qy	1	VRSSRTPSDXPVAHVVANPQAEQOLWLNPRANALLANGVLEIDNQLVVPSEGLYLIYS	60		
Db	1	VRSSRTPSDAPVAHVVANPQAEQOLWLNRRANALLANGVLEIDNQLVVPSEGLYLIYS	60		
Qy	61	QVLFPGGCGSPSTHLLTHTTSRIASVSTQXVNLLSAIXSPCQRTPEGAEXAPWPEYIYL	120		
Db	61	QVLFSGGCGSPSTHLLTHTTSRIASVSTQTRVNLLSAIXSPCQRTPEGAALPWPEYIYL	120		
Qy	121	GGVQFLKXGDRLSAEINRPDYLPFAESGVYFGIIAL	157		
Db	121	GGVFOLETDGRLSAEINRPDYLPFAESGVYFGIIAL	157		

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RESULT 2
US-10-668-178-16
; Sequence 16, Application US/10668178
; Publication No. US20050013795A1
; GENERAL INFORMATION:
; APPLICANT: KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJYO
; APPLICANT: MAYUMI, Tadanori
; APPLICANT: TSUTSUMI, Yasuo
; APPLICANT: NAKAGAWA, Shinsaku
; APPLICANT: IREGAMI, Hakuo
; TITLE OF INVENTION: Biologically-active conjugate
; FILE REFERENCE: MAYUMI2A
; CURRENT APPLICATION NUMBER: US/10/668,178
; CURRENT FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: JP 83509/2002
; PRIOR FILING DATE: 2002-03-25
; PRIOR APPLICATION NUMBER: JP 185387/2002
; PRIOR FILING DATE: 2002-06-26
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 16
; LENGTH: 157
; TYPE: PRT

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RESULT 3
US-09-756-301A-1
; Sequence 1, Application US/09756301A
; Patent No. US20010027249A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-008
; CURRENT APPLICATION NUMBER: US/09/756.301A

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, CURRENT FILING DATE: 2001-01-08
, PRIOR APPLICATION NUMBER: U.S. 09/333,119
, PRIOR FILING DATE: 1998-08-12
, PRIOR APPLICATION NUMBER: U.S. 08/570,674
, PRIOR FILING DATE: 1995-12-11
, PRIOR APPLICATION NUMBER: U.S. 08/324,799
, PRIOR FILING DATE: 1994-10-18
, PRIOR APPLICATION NUMBER: U.S. 08/192,102
, PRIOR FILING DATE: 1994-02-04
, PRIOR APPLICATION NUMBER: U.S. 08/192,861
, PRIOR FILING DATE: 1994-02-04
, PRIOR APPLICATION NUMBER: U.S. 08/192,093
, PRIOR FILING DATE: 1994-02-04
, PRIOR APPLICATION NUMBER: U.S. 08/010,406
, PRIOR FILING DATE: 1993-01-29
, PRIOR APPLICATION NUMBER: U.S. 08/013,413
, PRIOR FILING DATE: 1993-02-02
, PRIOR APPLICATION NUMBER: U.S. 07/943,852
, PRIOR FILING DATE: 1992-09-11
, PRIOR APPLICATION NUMBER: U.S. 07/853,606
, PRIOR FILING DATE: 1992-03-18
, PRIOR APPLICATION NUMBER: U.S. 07/670,827
, PRIOR FILING DATE: 1991-03-18
, NUMBER OF SEQ ID NOS: 19
, SOFTWARE: FASTSEQ for Windows Version 4.0
, SEQ ID NO 1
, LENGTH: 157
, TYPE: PRT
, ORGANISM: Homo sapiens
US-09-756-301A-1

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Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 VRSSSTPDSXPAHVAVVNPQAGQLQWLRNRANALLANGVELRDNLVVPSEGLYLIYS 60

Db 1 VRSSRTSPDKPVAHVANPQAGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157

RESULT 4

US-09-927-703-1
; Sequence 1, Application US/09927703
; Patent No. US2002022720A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junning
; APPLICANT: Vlcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Grayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-013
; CURRENT APPLICATION NUMBER: US/09/927,703
; CURRENT FILING DATE: 2001-08-10
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-927-703-1

Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTSPDKPVAHVANPQAGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTSPDKPVAHVANPQAGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157

Db 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157

RESULT 5

US-09-854-280-19
; Sequence 19, Application US/09854280
; Patent No. US20020052027A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Jian
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin
; APPLICANT: Li, Hanzhong
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF
; FILE REFERENCE: P1381R1C2
; CURRENT APPLICATION NUMBER: US/09/854,280
; CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US 09/311,832
; PRIOR FILING DATE: 1999-05-14
; PRIOR APPLICATION NUMBER: US 60/085,579
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: US 60/113,621
; PRIOR FILING DATE: 1998-12-23
; NUMBER OF SEQ ID NOS: 26
; SEQ ID NO 19
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-854-280-19

Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTSPDKPVAHVANPQAGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTSPDKPVAHVANPQAGQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Db 61 QVLFKGGCGPSTHLLTHTTISRIVSYQTKVNLISAIKSPCQRTPEGAAXPWYEPYIL 120
Qy 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGRLSAEINRPDYLDPAESGGVYFGIIAL 157

RESULT 6

US-09-934-465-13
; Sequence 13, Application US/09934465
; Patent No. US2002010233A1
; GENERAL INFORMATION:
; APPLICANT: Ashkenazi, Avi J.
; TITLE OF INVENTION: APO-2 LIGAND
; FILE REFERENCE: 11669.22US03
; CURRENT APPLICATION NUMBER: US/09/934,465
; CURRENT FILING DATE: 2001-08-21
; PRIOR APPLICATION NUMBER: 08/584,031
; PRIOR FILING DATE: 1996-01-09
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-934-465-13

Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
Db 1 VRSSRTPSDKPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
Db 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157

RESULT 7
US-09-766-535A-1
; Sequence 1, Application US/09766535A
; Patent No. US20020106372A1
; GENERAL INFORMATION:
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Chrayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-010
; CURRENT APPLICATION NUMBER: US/09/766,535A
; CURRENT FILING DATE: 2001-01-18
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-766-535A-1

Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 VRSSRTPSDXPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
Db 1 VRSSRTPSDKPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
Db 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157

Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
RESULT 8
US-09-854-208-19
; Sequence 19, Application US/09854208
; Patent No. US20020106743A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Jian
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin
; APPLICANT: Li, Hanzhong
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: P1381-R1
; CURRENT APPLICATION NUMBER: US/09/854,208
; CURRENT FILING DATE: 2001-05-10
; PRIOR APPLICATION NUMBER: US/09/311,832
; PRIOR FILING DATE: 1999-05-14
; PRIOR APPLICATION NUMBER: US 60/085,579
; PRIOR FILING DATE: 1998-05-15
; PRIOR APPLICATION NUMBER: US 60/113,621
; PRIOR FILING DATE: 1998-12-23
; NUMBER OF SEQ ID NOS: 26
; SEQ ID NO 19
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-854-208-19
Query Match 99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;
QY 1 VRSSRTPSDXPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
Db 1 VRSSRTPSDKPAHVAVNPQAEQQLWLNRRNALLANGVELRDNLVVPSEGLYIYS 60
QY 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
Db 61 QVLFKGGCPSHTVLLTHTISRIAVSYQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
RESULT 9
US-09-756-161A-1
; Sequence 1, Application US/09756161A
; Patent No. US20020132307A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Chrayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-007
; CURRENT APPLICATION NUMBER: US/09/756,161A
; CURRENT FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04


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; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-756-161A-1

Query Match          99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Db 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Qy 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Db 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157

RESULT 10
US-09-903-327A-7
; Sequence 7, Application US/09903327A
; Patent No. US20020164333A1
; GENERAL INFORMATION:
; APPLICANT: Nemerow, Glen R.
; TITLE OF INVENTION: BIFUNCTIONAL MOLECULES AND VECTORS COMPLEXED THEREWITH FOR TARGET
; TITLE OF INVENTION: GENE
; TITLE OF INVENTION: DELIVERY
; FILE REFERENCE: 22908-1228
; CURRENT APPLICATION NUMBER: US/09/903,327A
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: 09/613,017
; PRIOR FILING DATE: 2000-07-10
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Human
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (0)...(0)
; OTHER INFORMATION: Tumor necrosis factor-alpha (TNF alpha, mature
; * OTHER INFORMATION: peptide)
US-09-903-327A-7

Query Match          99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Db 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
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Db 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Db 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157

RESULT 11
US-09-756-398B-1
; Sequence 1, Application US/09756398B
; Publication No. US20030017584A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-006
; CURRENT APPLICATION NUMBER: US/09/756,398B
; CURRENT FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-756-398B-1

Query Match          99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAVHVVANPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Qy 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Db 61 QVLFKGGCGPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGAEAKPWYEPYIYL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDPAESGGVYFGIIAL 157
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RESULT 12
US-09-897-724-1
; Sequence 1, Application US/09897724
; Publication No. US20030175837A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-012
; CURRENT APPLICATION NUMBER: US/09/897,724
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 2001-07-02
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-897-724-1

Query Match          99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPAHVAVNPAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPAHVAVNPAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKQGCGPSTHVLTLTHTSIRIAVSQYQXVLLSAIXPCQRETPEGABKXPWYPIYL 120
Db 61 QVLFKQGCGPSTHVLTLTHTSIRIAVSQYQXVLLSAIXPCQRETPEGABKXPWYPIYL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157

RESULT 14
US-10-043-450-1
; Sequence 1, Application US/10043450
; Publication No. US20020141996A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-013
; CURRENT APPLICATION NUMBER: US/10/043,450
; CURRENT FILING DATE: 2002-01-10
; PRIOR APPLICATION NUMBER: 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-043-450-1

Query Match          99.2%; Score 774; DB 3; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPAHVAVNPAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPAHVAVNPAEQQLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
QY 61 QVLFKQGCGPSTHVLTLTHTSIRIAVSQYQXVLLSAIXPCQRETPEGABKXPWYPIYL 120
Db 61 QVLFKQGCGPSTHVLTLTHTSIRIAVSQYQXVLLSAIXPCQRETPEGABKXPWYPIYL 120
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157

RESULT 13
US-10-010-229-1
; Sequence 1, Application US/10010229
; Publication No. US20020114805A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-013
; CURRENT APPLICATION NUMBER: US/10/010,229
; CURRENT FILING DATE: 2001-12-07
; PRIOR APPLICATION NUMBER: US/09/927,703
; PRIOR FILING DATE: 2001-08-10
; NUMBER OF SEQ ID NOS: 19
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Query Match 99.2%; Score 774; DB 4; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Db 1 VRSSRTPSDKPVAAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60

Qy 61 QVLFKGGGCPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGARAXPWVEPIYL 120
Db 61 QVLFKGGGCPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGARAXPWVEPIYL 120

Qy 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

Search completed: April 3, 2006, 08:23:15
Job time : 52 secs

RESULT 15
US-10-044-534-1
; Sequence 1, Application US/10044534
; Publication No. US20020146419A1
; GENERAL INFORMATION:
; APPLICANT: Le, Junming
; APPLICANT: Vilcek, Jan
; APPLICANT: Daddona, Peter
; APPLICANT: Ghayeb, John
; APPLICANT: Knight, David M.
; APPLICANT: Siegel, Scott
; TITLE OF INVENTION: Anti-TNF Antibodies and Peptides of
; TITLE OF INVENTION: Human Tumor Necrosis Factor
; FILE REFERENCE: 0975.1005-013
; CURRENT APPLICATION NUMBER: US/10/044,534
; CURRENT FILING DATE: 2002-01-10
; PRIOR APPLICATION NUMBER: 09/927,703
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: U.S. 09/756,398
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: U.S. 09/133,119
; PRIOR FILING DATE: 1998-08-12
; PRIOR APPLICATION NUMBER: U.S. 08/570,674
; PRIOR FILING DATE: 1995-12-11
; PRIOR APPLICATION NUMBER: U.S. 08/324,799
; PRIOR FILING DATE: 1994-10-18
; PRIOR APPLICATION NUMBER: U.S. 08/192,102
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,861
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/192,093
; PRIOR FILING DATE: 1994-02-04
; PRIOR APPLICATION NUMBER: U.S. 08/010,406
; PRIOR FILING DATE: 1993-01-29
; PRIOR APPLICATION NUMBER: U.S. 08/013,413
; PRIOR FILING DATE: 1993-02-02
; PRIOR APPLICATION NUMBER: U.S. 07/943,852
; PRIOR FILING DATE: 1992-09-11
; PRIOR APPLICATION NUMBER: U.S. 07/853,606
; PRIOR FILING DATE: 1992-03-18
; PRIOR APPLICATION NUMBER: U.S. 07/670,827
; PRIOR FILING DATE: 1991-03-18
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 157
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-044-534-1

Query Match 99.2%; Score 774; DB 4; Length 157;
Best Local Similarity 96.2%; Pred. No. 9.6e-84;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 VRSSRTPSDKPVAAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60

Db 1 VRSSRTPSDKPVAAHVANPQAEQQLWLNRRANALLANGVELRDNLVVPSEGLYLIYS 60
Qy 61 QVLFKGGGCPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGARAXPWVEPIYL 120
Db 61 QVLFKGGGCPSTHVLTHTSIRIAVSQTKVNLLSAIXSPCQRETPEGARAXPWVEPIYL 120
Qy 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157
Db 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIALL 157

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GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 3, 2006, 08:19:10 ; Search time 114 Seconds
(without alignments)
971.649 Million cell updates/sec

Title: US-10-668-178-2
Perfect score: 780
Sequence: 1 VRSSRRPSPDXPAHVAVNP.....RPYLDPAASGVYFGIIAL 157

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : UniProt 05.80.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	774	99.2	233	1	TNFA_HUMAN
2	774	99.2	233	2	Q5STB3_HUMAN
3	767	98.3	233	1	TNFA_PAPSP
4	765	98.1	232	1	TNFA_PANTR
5	756	96.9	233	1	TNFA_MACMU
6	753	96.5	233	1	TNFA_MACFA
7	752	96.4	233	1	TNFA_PAPHU
8	749	96.0	233	1	TNFA_PAPAN
9	739	94.7	149	2	O97543_AOTNA
10	733	94.0	233	1	TNFA_CANFA
11	726	93.1	233	1	TNFA_FELCA
12	702	90.0	233	1	TNFA_SATSC
13	692	88.7	234	1	TNFA_HORSE
14	691	88.6	149	2	O97538_AOTVO
15	691	88.6	149	2	O97538_AOTNI
16	686	87.9	217	2	O9BEG0_CYCIDI
17	682	87.4	217	2	O9BEG1_BRATR
18	675	86.5	233	1	TNFA_DELE
19	673	86.3	232	1	TNFA_PIG
20	657	84.2	233	1	TNFA_TURTR
21	647	82.9	217	2	O9BEF4_CABUN
22	638	81.8	138	2	O9TTG7_AOTLE
23	637	81.7	234	1	TNFA_CAPHI
24	634	81.3	234	2	O532M5_CAPHI
25	632	81.1	234	1	TNFA_CAVPO
26	631	80.9	216	2	O9BEC4_TALEU
27	629	80.7	235	1	TNFA_MOUSE
28	628	80.5	229	1	TNFA_CEREL
29	628	80.5	234	2	O539C2_TUPTA
30	627	80.4	235	1	TNFA_RABIT
31	627	80.4	233	1	TNFA_BOVIN

ALIGNMENTS

P59693 bubalus bub
P59684 bos indicus
P23383 ovis aries
P36939 peromyscus
Q5w9h9 meriones un
Q80xa4 peromyscus
P66599 rattus norv
Q75n23 camelus bac
P59694 lama glama
Q912l4 sigmodon hi
Q35734 marmota mon
Q6x658 marmota mon
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Q8bec9 erinaceus e
O70332 mesocricetu
Q8erg6 peromyscus
Q8bec5 tenrec eacu
O77764 macropus eu
Q99nd1 sciurus vul
Q8bee0 macropus ru
Q8hzd8 gorilla gor
Q8hzd7 pongo pygma
Q8hzd5 saguinus oe
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Q864y9 manis sp. c
Q864y8 elephas max
Q80202 trichys fas
Q864y7 tupia tana
P79374 trichosurus
Q80205 dipodomys m
Q7yse3 ovis aries
Q9r136 meriones un
Q95n81 canis famil
O75t06 oryctolagus
Q9jmo9 marmota mon
Q6pw44 sus scrofa
Q7t194 acanthopagr
P10154 oryctolagus
Q06600 bos taurus
O5wr07 canis famil
Q7tlu4 pagrus majo
P26445 sus scrofa
Q8jfg3 sparus aura
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Q6u817 lateolabrax
Q80we7 peromyscus
Q06332 rattus norv
P09225 mus musculus
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1 Q80XA4_PERMA
1 TNFA_RAT
1 Q6EE11_RAT
1 TNFA_CAMBA
1 TNFA_LAMGL
1 Q912L4_SIGHI
1 TNFA_MAMO
1 Q6X658_MARMO
1 Q9BEC9_OCHPR
1 Q9BEE8_ERIEU
1 O70332_MESAU
1 Q9ERG6_PERMA
1 Q9BEC5_TENEC
1 TNFA_MACEU
1 Q99ND1_SCIUV
1 Q9BEE0_MACRU
1 Q8HZD8_9PRIM
1 Q8HZD7_PONPY
1 Q8HZD5_SAGOE
1 Q86420_PHYCA
1 Q864Y9_9EUTH
1 Q864Y8_ELEMA
1 Q80202_9HYST
1 Q80202_DIPSA
1 Q864Y7_TUPTA
1 TNFA_TRIVU
1 Q80205_DIPME
1 Q7YSE3_SHEEP
1 Q9R136_MERUN
1 Q95N81_CANFA
1 O75T06_RABIT
1 TNFB_MARMO
1 Q6PW44_PIG
1 Q7T194_ACASC
1 TNFB_RABIT
1 TNFB_BOVIN
1 TNFB_CANFA
1 Q7T1U4_PAGMA
1 TNFB_PIG
1 TNFA_SPAAU
1 TNFB_MACEU
1 Q6U817_LATUA
1 Q80WE7_PERMA
1 TNFB_RAT
1 TNFB_MOUSE
1 Q54252_MOUSE
1 Q91B42_PAROL
1 Q4W8A0_FUGRU
1 Q91B41_PAROL
1 Q5VJN5_ORENI
1 Q91976_ONCMY
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1 Q5BMN3_SALSA
1 Q9ERC9_MESAU
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1 TNFB_PANTR
1 Q5ST93_HUMAN
1 Q5STV3_HUMAN
1 Q6FG55_HUMAN

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233 76.9 599 44
216 76.3 598 45
215 76.3 595 46
216 74.9 584 47
217 74.4 580 48
217 74.2 579 49
233 73.5 573 50
215 73.3 572 51
216 68.6 535 52
155 68.1 531 53
155 67.9 530 54
155 64.2 501 55
103 61.0 476 56
103 60.1 469 57
99 58.2 454 58
102 57.6 449 59
214 57.5 448 60
59 57.1 445 61
102 56.7 442 62
102 55.6 433 63
102 55.3 431 64
103 54.7 427 65
233 54.7 427 66
102 50.6 394 67
70 39.2 306 68
65 36.8 287 69
70 36.0 281 70
70 34.7 271 71
205 33.0 257 72
74 32.9 257 73
233 32.6 254 74
197 31.5 252 75
204 31.5 245 76
204 31.5 245 77
222 31.4 245 78
224 31.0 241 79
253 30.9 241 80
201 30.6 240 81
241 30.6 239 82
202 30.4 237 83
202 30.1 235 84
202 29.9 233 85
202 29.9 233 86
225 29.9 233 87
225 29.7 233 88
225 29.7 231 89
247 28.8 224 90
246 27.8 217 91
246 27.6 215 92
188 27.2 212 93
246 27.2 212 94
137 26.9 210 95
205 26.9 209 96
205 26.9 209 97
205 26.9 209 98
205 26.9 209 99
205 26.9 209 100


```

DR InterPro; IPR006052; TNF family.
DR InterPro; IPR003636; TNF_subf.
DR PAM; PF00229; TNF; 1.
DR PRINTS; PR01234; TNECROSISFCT.
DR PRODOM; PD02012; TNF_subf. 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS0049; TNF_2; 1.
KW Cytokine; Phosphorylation; Signal-anchor; Transmembrane.
FT CHAIN 1 232
FT CHAIN 77 232
FT CHAIN 77 232
FT TOPO_DOM 1 34
FT TRANSMEM 35 57
FT SIGNAL-ANCHOR 34 57
FT PROTEIN 58 232
FT SITE_76 77
FT MOD_RES 2 2
FT DISULFID 144 176
FT CONFLICT 77 77
FT G -> VR (in Ref. 3).
SQ SEQUENCE 232 AA; 25446 MW; B4D71B19C6AE0D03 CRC64;

Query Match 98.1%; Score 765; DB 1; Length 232;
Best Local Similarity 96.1%; Pred. No. 7.4e-76;
Matches 149; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 3 SSSRTPSDXPAHVAVVNPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYSQV 62
DB 78 SSSRTPSDXPAHVAVVNPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYSQV 137
QY 63 LFKGQGCPSHTVLLTHTISRIAVSYQTKVNLSSAIXSPQRETPEGAXPWTBPIYLG 122
DB 138 LFKGQGCPSHTVLLTHTISRIAVSYQTKVNLSSAIXSPQRETPEGAXPWTBPIYLG 197
QY 123 VFQLEKGRDLSAEINRDYLDFAESGVYFGIALL 157
DB 198 VFQLEKGRDLSAEINRDYLDFAESGVYFGIALL 232

RESULT 5
TNFA_MACMU STANDARD; PRT; 233 AA.
AC P48094; Q5TW21; Q8HZD6;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor
DE necrosis factor, membrane form; Tumor necrosis factor, soluble form].
GN Name=TNF; Synonyms=TNFA, TNFSF2;
OS Macaca mulatta (Rhesus macaque);
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopithecoidea; Cercopithecinae; Macaca.
OX NCBI_TaxID=9544;
RN [1]
RP NUCLEOTIDE SEQUENCE [MRNA].
RX MEDLINE=56003435; PubMed=7561102;
RA Vallingner F.J., Brar S.S., Mayne A.E., Chikkala N., Ansari A.A.;
RT "Comparative sequence analysis of cytokine genes from human and
RT nonhuman primates.";
RL J. Immunol. 155:3946-3954 (1995).
RN [2]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RX PubMed=15262276; DOI=10.1093/molbev/msh216;
RA Kulski J.K., Anzai T., Shiina T., Inoko H.;
RT "Rhesus macaque class I duplicon structures, organization, and
RT evolution within the alpha block of the major histocompatibility
RT complex.";
RL Mol. Biol. Evol. 21:2079-2091 (2004).
RN [3]

NUCLEOTIDE SEQUENCE [GENOMIC DNA] OF 33-187.
O'Huigin C., Tichy H., Klein J.;
R "Molecular evolution in higher primates; gene specific and organism
R specific characteristics.";
RL Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.
CC TNFRSF1B/TNFR. It is mainly secreted by macrophages and can
CC induce cell death of certain tumor cell lines. It is potent
CC pyrogen causing fever by direct action or by stimulation of
CC interleukin 1 secretion and is implicated in the induction of
CC cachexia. Under certain conditions it can stimulate cell
CC proliferation and induce cell differentiation.
CC -1- SUBUNIT: Homotrimer (By similarity).
CC -1- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC extracellular soluble form (By similarity).
CC -1- PM: The soluble form derives from the membrane form by
CC proteolytic processing (By similarity).
CC -1- PM: The membrane form, but not the soluble form, is
CC phosphorylated on serine residues. Dephosphorylation of the
CC membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (By
CC similarity).
CC -1- SIMILARITY: Belongs to the tumor necrosis factor family.

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the European Bioinformatics Institute. There are no restrictions on its
use as long as its content is in no way modified and this statement is not
removed.

EMBL; U19850; AAA86712.1; -; mRNA.
EMBL; AB128049; BAD67924.1; -; Genomic DNA.
EMBL; AY091967; AAM76585.1; -; Genomic DNA.
HSSP; P01375; 4TSV.
SMR; P48094; 82-233.
InterPro; IPR006053; TNF abc.
InterPro; IPR002959; TNF_alpha.
InterPro; IPR006052; TNF_family.
InterPro; IPR003636; TNF_subf.
PANTHER; PTHR11471.SF4; TNF_alpha; 1.
Pfam; PF00229; TNF; 1.
PRINTS; PR01234; TNECROSISFCT.
PRINTS; PR01235; TNFALPHA.
PRODOM; PD002012; TNF_subf; 1.
SMART; SM00207; TNF; 1.
PROSITE; PS00251; TNF_1; 1.
PROSITE; PS0049; TNF_2; 1.
Cytokine; Phosphorylation; Signal-anchor; Transmembrane.
FT CHAIN 1 233
FT CHAIN 77 233
FT TOPO_DOM 1 35
FT TRANSMEM 36 56
FT TOPO_DOM 57 233
FT SITE_76 77
FT MOD_RES 2 2
FT DISULFID 145 177
FT SEQUENCE 233 AA; 25630 MW; 9F6F850595FD59 CRC64;

Query Match 96.9%; Score 756; DB 1; Length 233;
Best Local Similarity 94.3%; Pred. No. 7.4e-75;
Matches 148; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

QY 1 VRSSSRTPSDXPAHVAVVNPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYS 60
DB 77 VRSSSRTPSDXPAHVAVVNPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLYS 136
QY 61 QVLPKQGCPSHTVLLTHTISRIAVSYQTKVNLSSAIXSPQRETPEGAXPWTBPIY 120
DB 137 QVLPKQGCPSHTVLLTHTISRIAVSYQTKVNLSSAIXSPQRETPEGAXPWTBPIY 196
QY 121 GGVFQLEKGRDLSAEINRDYLDFAESGVYFGIALL 157
DB 197 GGVFQLEKGRDLSAEINRDYLDFAESGVYFGIALL 233

```

RESULT 6		TNFA MACFA		STANDARD;		PRT; 233 AA.	
ID	TNFA MACFA						
AC	P79337;						
DT	15-JUL-1998 (Rel. 36, Created)						
DT	15-JUL-1998 (Rel. 36, Last sequence update)						
DT	13-SEP-2005 (Rel. 48, Last annotation update)						
DE	Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor necrosis factor, membrane form; Tumor necrosis factor, soluble form].						
DR	Name:TNF; Synonyms:TNFA, TNFSF2;						
GN	Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).						
OS	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Cercopithecoidea; Cercopithecinae; Macaca.						
OX	NCBI_TaxID=9541;						
RN	[1]						
RP	NUCLEOTIDE SEQUENCE [MRNA].						
RC	TISSUE=Lymphocyte;						
RA	Tatsumi M.;						
RT	"Molecular cloning and expression of cynomolgus monkey TNF-alpha.";						
RL	Submitted (JAN-1997) to the EMBL/GenBank/DBJ databases.						
CC	-1- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia. Under certain conditions it can stimulate cell proliferation and induce cell differentiation.						
CC	-1- SUBUNIT: Homotrimer (By similarity).						
CC	-1- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an extracellular soluble form (By similarity).						
CC	-1- PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).						
CC	-1- PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (By similarity).						
CC	-1- SIMILARITY: Belongs to the tumor necrosis factor family.						
CC							
CC	This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.						
CC							
DR	EMBL; AB000513; BAA19131.1; -; mRNA.						
DR	HSSP; P01375; 4TSV.						
DR	SMR; P79337; 82-233.						
DR	InterPro; IPR006053; TNF abc.						
DR	InterPro; IPR002959; TNF_alpha.						
DR	InterPro; IPR006052; TNF_family.						
DR	InterPro; IPR003636; TNF_subf.						
DR	PANTHER; PTHR11471:SF4; TNF_alpha; 1.						
DR	Pfam; PF00229; TNF; 1.						
DR	PRINTS; PR01234; TNECROSISFCT.						
DR	PRINTS; PR01235; TNFALPHA.						
DR	ProDom; PD002012; TNF_subf; 1.						
DR	SMART; SM00207; TNF; 1.						
DR	PROSITE; PS00251; TNF_1; 1.						
DR	PROSITE; PS00049; TNF_2; 1.						
KW	Cytokine; Phosphorylation; Signal-anchor; Transmembrane.						
FT	CHAIN 1 233						
FT	CHAIN 77 233						
FT	TOPO_DOM 1 35						
FT	TRANSMEM 36 56						
FT	TOPO_DOM 57 233						
FT	SITE 76 77						
FT	MOD_RES 2 2						
FT	DISULFID 145 177						
RESULT 7		TNFA PAPHU		STANDARD;		PRT; 233 AA.	
ID	TNFA PAPHU						
AC	O77510;						
DT	15-DEC-1998 (Rel. 37, Created)						
DT	15-DEC-1998 (Rel. 37, Last sequence update)						
DT	13-SEP-2005 (Rel. 48, Last annotation update)						
DE	Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor necrosis factor, membrane form; Tumor necrosis factor, soluble form].						
DE	Name:TNF; Synonyms:TNFA, TNFSF2;						
GN	Papio hamadryas ursinus (Chacma baboon).						
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Cercopithecoidea; Cercopithecinae; Papio.						
OX	NCBI_TaxID=36229;						
RN	[1]						
RP	NUCLEOTIDE SEQUENCE [MRNA].						
RX	MEDLINE=98147379; PubMed=9488055; DOI=10.1016/S0161-5890(97)00124-7;						
RA	Haudek S.B., Redl H., Schlag G., Giroir B.P.;						
RT	"Complementary DNA (cDNA) sequence of baboon tumor necrosis factor alpha.";						
RT	Mol. Immunol. 34:1041-1042(1997).						
CC	-1- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia. Under certain conditions it can stimulate cell proliferation and induce cell differentiation.						
CC	-1- SUBUNIT: Homotrimer (By similarity).						
CC	-1- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an extracellular soluble form (By similarity).						
CC	-1- PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).						
CC	-1- PTM: The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (By similarity).						
CC	-1- SIMILARITY: Belongs to the tumor necrosis factor family.						
CC							
CC	This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.						
CC							
DR	EMBL; AF019963; AAC31675.1; -; mRNA.						
DR	HSSP; P01375; 4TSV.						
DR	SMR; O77510; 82-233.						
DR	InterPro; IPR006053; TNF abc.						
DR	InterPro; IPR002959; TNF_alpha.						
DR	InterPro; IPR006052; TNF_family.						
DR	InterPro; IPR003636; TNF_subf.						
DR	PANTHER; PTHR11471:SF4; TNF_alpha; 1.						
DR	Pfam; PF00229; TNF; 1.						
DR	PRINTS; PR01234; TNECROSISFCT.						
DR	PRINTS; PR01235; TNFALPHA.						
DR	ProDom; PD002012; TNF_subf; 1.						
DR	SMART; SM00207; TNF; 1.						
DR	PROSITE; PS00251; TNF_1; 1.						
DR	PROSITE; PS00049; TNF_2; 1.						
KW	Cytokine; Phosphorylation; Signal-anchor; Transmembrane.						
FT	CHAIN 1 233						
FT	CHAIN 77 233						
FT	TOPO_DOM 1 35						
FT	TRANSMEM 36 56						
FT	TOPO_DOM 57 233						
FT	SITE 76 77						
FT	MOD_RES 2 2						
FT	DISULFID 145 177						

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DR PANTHER; PTHR11471:SF4; TNF_alpha; 1.
DR Pfam; PF00229; TNF; 1.
DR PRINTS; PR01234; TNCRSISFCT.
DR PRINTS; PR01235; TNFALPHA.
DR PRODOM; PD002012; TNF_subf; 1.
DR SMART; SM00207; TNF; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS0049; TNF_2; 1.
KW Cytokine; Phosphorylation; Signal-anchor; Transmembrane.
FT CHAIN 1 233 Tumor necrosis factor, membrane form.
FT CHAIN 77 233 Tumor necrosis factor, soluble form.
FT TOPO_DOM 1 35 Cytoplasmic (Potential)
FT TRANSMEM 36 56 Signal-anchor for type II membrane protein (Potential).
FT TOPO_DOM 57 233 Extracellular (Potential).
FT SITE 76 77 Cleavage (by ADAM17) (By similarity).
FT MOD_RES 2 2 Phosphoserine (by CK1) (By similarity).
FT DISULFID 145 177 By similarity.
SQ SEQUENCE 233 AA; 25658 MW; B9403255058D4A03 CRC64;

Query Match 96.4%; Score 752; DB 1; Length 233;
Best Local Similarity 93.6%; Pred. No. 2e-74;
Matches 147; Conservative 0; Mismatches 10; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXPVAVVNPQAEQQLWLNRRANALLANGVELDNLQVVPSEGLYLIYS 60
DB 77 VRSSRTSPDXPVAVVNPQAEQQLWLNRRANALLANGVELDNLQVVPSEGLYLIYS 136
QY 61 QVLFKGGCGPSTHLLTHTTSIRIAVSQTKVNLSSAIXSPCQRTPEGAAXPWYEPYIL 120
DB 137 QVLFKGGCGPSTHLLTHTTSIRIAVSQTKVNLSSAIXSPCQRTPEGAAXPWYEPYIL 196

RESULT 8
TNFA PAPAN STANDARD; PRT; 233 AA.
AC P59695;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor necrosis factor, membrane form; Tumor necrosis factor, soluble form].
GN Name:TNF; Synonyms:TNFA, TNFSF2;
OS Papio anubis (Olive baboon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC Cercopithecoidea; Cercopithecinae; Papio.
OX NCBI_TaxID=9555;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=21393618; PubMed=11491535; DOI=10.1007/s002510100322;
RA Villingner F.J., Bosak P., Mayne A.E., King C.L., Genain C.P., Weiss W.R., Ansari A.A.;
RA "Cloning, sequencing, and homology analysis of nonhuman primate Fas/Fas-ligand and co-stimulatory molecules.";
RT Immunogenetics 53:315-328(2001).
RL -1- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent inrogen causing fever by direct action or by stimulation of interleukin 1 secretion and is implicated in the induction of cachexia. Under certain conditions it can stimulate cell proliferation and induce cell differentiation (By similarity).
CC -1- SUBUNIT: Homotrimer (By similarity).
CC -1- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an extracellular soluble form (By similarity).
CC -1- PTM: The soluble form derives from the membrane form by proteolytic processing (By similarity).
```

```
CC PANTHER; PTHR11471:SF4; TNF_alpha; 1.
CC Pfam; PF00229; TNF; 1.
CC PRINTS; PR01234; TNCRSISFCT.
CC PRINTS; PR01235; TNFALPHA.
CC PRODOM; PD002012; TNF_subf; 1.
CC SMART; SM00207; TNF; 1.
CC PROSITE; PS00251; TNF_1; 1.
CC PROSITE; PS0049; TNF_2; 1.
KW Cytokine; Phosphorylation; Signal-anchor; Transmembrane.
FT CHAIN 1 233 Tumor necrosis factor, membrane form (By similarity).
FT CHAIN 77 233 Tumor necrosis factor, soluble form (By similarity).
FT TOPO_DOM 1 34 Cytoplasmic (Potential).
FT TRANSMEM 35 57 Signal-anchor for type II membrane protein (By similarity).
FT TOPO_DOM 58 233 Extracellular (Potential).
FT SITE 76 77 Cleavage (by ADAM17) (By similarity).
FT MOD_RES 2 2 Phosphoserine (by CK1) (By similarity).
FT DISULFID 145 177 By similarity.
SQ SEQUENCE 233 AA; 25736 MW; OC477F9EB6CC9909 CRC64;

Query Match 96.0%; Score 749; DB 1; Length 233;
Best Local Similarity 93.6%; Pred. No. 4.4e-74;
Matches 147; Conservative 0; Mismatches 10; Indels 0; Gaps 0;

QY 1 VRSSRTSPDXPVAVVNPQAEQQLWLNRRANALLANGVELDNLQVVPSEGLYLIYS 60
DB 77 VRSSRTSPDXPVAVVNPQAEQQLWLNRRANALLANGVELDNLQVVPSEGLYLIYS 136
QY 61 QVLFKGGCGPSTHLLTHTTSIRIAVSQTKVNLSSAIXSPCQRTPEGAAXPWYEPYIL 120
DB 137 QVLFKGGCGPSTHLLTHTTSIRIAVSQTKVNLSSAIXSPCQRTPEGAAXPWYEPYIL 196
QY 121 GGVFQLEKGDRLSAEINRPDYLPFAESGVYFGIIAL 157
DB 197 GGVFQLEKGDRLSAEINRPDYLPFAESGVYFGIIAL 233

RESULT 9
O97543_AOTNA PRELIMINARY; PRT; 149 AA.
ID O97543_AOTNA
AC O97543;
DT 01-MAY-1999 (TtEMBLrel. 10, Created)
DT 01-MAY-1999 (TtEMBLrel. 10, Last sequence update)
DT 01-OCT-2003 (TtEMBLrel. 25, Last annotation update)
DE Tumor necrosis factor alpha (Fragment).
GN Name:TNF-alpha;
OS Aotus nancymae (Ma's night monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini; Cebidae;
OC Aotinae; Aotus
OX NCBI_TaxID=37293;
RN [1]
```



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SQ SEQUENCE 233 AA; 25447 MW; 7B2588F8CB25340 CRC64;
Query Match 94.0%; Score 733; DB 1; Length 233;
Best Local Similarity 89.8%; Pred. No. 2.6e-72;
Matches 141; Conservative 6; Mismatches 10; Indels 0; Gaps 0;

Qy 1 VRSSSRTPSDKPVAVVYVNPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Dd 77 VKSSSRTPSDKPVAVVYVNPQAEQQLWLSRRANALLANGVELTDNLQVPSDGLYLIYS 136

Qy 61 QVLFKGGCGPSTHVLTTHTISRIVSVQTKVNLLSAIXSPQRETPEGAEAXPWYEPYIL 120
Dd 137 QVLFKGGCGPSTHVLTTHTISRFAVSQTKVNLLSAIXSPQRETPEGTEAKPWYEPYIL 196

Qy 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Dd 197 GGVFQLEKGDRLSAEINLPYLDFAESGQVYFGIIAL 233

RESULT 11
TNFA_FELCA STANDARD; PRT; 233 AA.
AC P19101; O8HYM0;
DT 01-NOV-1990 (Rel. 16, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor
DE necrosis factor, membrane form; Tumor necrosis factor, soluble form].
GN Name=TNF; Synonyms=TNFA, TNFSF2;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Felidae;
OC Felinae; Felis.
OX NCBI_TaxID=9685;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Blood;
RX MEDLINE=91015660; PubMed=2216740;
RA McGraw R.A., Coffee B.W., Otto C.M., Drews R.T., Rawlings C.A.;
RT "Gene sequence of feline tumor necrosis factor alpha.";
RL Nucleic Acids Res. 18:5563-5563(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE [MRNA].
RC TISSUE=Bone marrow;
RA Daniel S.L., Brenner C.A., Legendre A.M., Solomon A., Rouse B.T.;
RT "Feline cytokines TNF alpha and IL-1 beta: PCR cloning and sequencing
RT of cDNA.";
RL Anim. Biotechnol. 3:117-121(1992).
RN [3]
RP NUCLEOTIDE SEQUENCE OF 95-185.
RA Subott E.E., Rollo W.A., Venta P.J., Ewart S.L.;
RT "Characterization of 8 feline type I markers.";
RL Submitted (DEC-2001) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC TNFRSF1B/TNFR. It is mainly secreted by macrophages and can
CC induce cell death of certain tumor cell lines. It is potent
CC pyrogen causing fever by direct action or by stimulation of
CC interleukin 1 secretion and is implicated in the induction of
CC cachexia. Under certain conditions it can stimulate cell
CC proliferation and induce cell differentiation.
CC -1- SUBUNIT: Homotrimer (By similarity).
CC -1- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC extracellular soluble form (By similarity).
CC -1- PTM: The soluble form derives from the membrane form by
CC proteolytic processing (By similarity).
CC -1- PTM: The membrane form, but not the soluble form, is
CC phosphorylated on serine residues. Dephosphorylation of the
CC membrane form occurs by binding to soluble TNFRSF1A/TNFR1 (By
CC similarity).
CC -1- SIMILARITY: Belongs to the tumor necrosis factor family.
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CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
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DR EMBL; X54000; CAA37948.1; -; Genomic_DNA.
DR EMBL; M92061; AAA30818.1; -; mRNA.
DR EMBL; AF459810; AAO15590.1; -; Genomic_DNA.
DR PIR; S11688; S11688.
DR HSP; P01375; 4TSV.
DR SWR; P19101; 82-233.
DR InterPro; IPR006053; TNF_abc.
DR InterPro; IPR002959; TNF_alpha.
DR InterPro; IPR006052; TNF_family.
DR InterPro; IPR003636; TNF_subf.
DR PANTHER; PTHR11471:SF4; TNF_alpha; 1.
DR Pfam; PF00229; TNF; 1.
DR PRINTS; PR01234; TNECROSISFCT.
DR PRINTS; PR01235; TNFALPHA.
DR ProDom; PD002012; TNF_subf; 1.
DR SMART; SM00207; TNF; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS00049; TNF_2; 1.
KW Cytokine; Phosphorylation; Signal-anchor; Transmembrane.
FT CHAIN 1 233 Tumor necrosis factor, membrane form.
FT CHAIN 77 233 Tumor necrosis factor, soluble form.
FT TOPO_DOM 1 35 Cytoplasmic (Potential).
FT TRANSMEM 36 56 Signal-anchor for type II membrane
FT protein (Potential).
FT TOPO_DOM 57 233 Extracellular (Potential).
FT SITE 76 77 Cleavage (by ADAM17) (By similarity).
FT MOD_RHS 2 2 Phosphoserine (by CK1) (By similarity).
FT DISULFID 145 177 By similarity.
FT CONFLICT 28 28 G -> R (in Ref. 2).
FT CONFLICT 104 104 W -> R (in Ref. 1).
FT CONFLICT 141 141 T -> K (in Ref. 3).
FT CONFLICT 151 151 L -> H (in Ref. 2).
FT CONFLICT 155 155 T -> A (in Ref. 1).
FT CONFLICT 210 210 T -> A (in Ref. 2).
SQ SEQUENCE 233 AA; 25382 MW; 03E51823A7863510 CRC64;

Query Match 93.1%; Score 726; DB 1; Length 233;
Best Local Similarity 89.8%; Pred. No. 1.5e-71;
Matches 141; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

Qy 1 VRSSSRTPSDKPVAVVYVNPQAEQQLWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
Dd 77 LRSSSRTPSDKPVAVVYVNPQAEQQLWLSRRANALLANGVELTDNLQVPSDGLYLIYS 136

Qy 61 QVLFKGGCGPSTHVLTTHTISRIVSVQTKVNLLSAIXSPQRETPEGAEAXPWYEPYIL 120
Dd 137 QVLFKGGCGPSTHVLTTHTISRFAVSQTKVNLLSAIXSPQRETPEGAEAKPWYEPYIL 196

Qy 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
Dd 197 GGVFQLEKGDRLSTEINLPYLDFAESGQVYFGIIAL 233

RESULT 12
TNFA_SAISC STANDARD; PRT; 233 AA.
AC Q8MKG8;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE ligand superfamily member 2) (TNF-a) (Cachectin) [Contains: Tumor
DE necrosis factor, membrane form; Tumor necrosis factor, soluble form].
GN Name=TNF; Synonyms=TNFA, TNFSF2;
OS Saimiri sciureus (Common squirrel monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini; Cebidae;
OC Cebinae; Saimiri.
```



```
DR InterPro; IPR006052; TNF_family.
DR InterPro; IPR003636; TNF_subf.
DR PANTHER; PTHR11471:SF4; TNF_alpha; 1.
DR Pfam; PF00229; TNF; 1.
DR PRINTS; PRO1234; TNECROSISFCT.
DR PRINTS; PRO1235; TNFALPHA.
DR ProDom; PD002012; TNF_subf; 1.
DR SMART; SM00207; TNF; 1.
DR ProDom; PD002012; TNF_subf; 1.
DR SMART; SM00207; TNF; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS0049; TNF_2; 1.
DR NON_TER 1
FT NON_TER 149
SQ SEQUENCE 149 AA; 16415 MW; 86F1B9BCED16E689 CRC64;

Query Match 88.7%; Score 692; DB 1; Length 234;
Best Local Similarity 85.4%; Pred. No. 8.6e-69;
Matches 134; Conservative 10; Mismatches 13; Indels 0; Gaps 0;

QY 1 VRSSRTSPDKPVAVHVNANPQAEQQLWLNRRANALANGVELRDNLVVPSEGLYLYIS 60
Db 78 LRSSRTSPDKPVAVHVNANPQAEQQLWLNRRANALANGVELRDNLVVPSEGLYLYIS 137

QY 61 QVLFKGGCGSTHVLTHHTISRIAVSYQTXVNLLSAIXSPQRETPEGAEAXPWYEPYIL 120
Db 138 QVLFKGGCGSTHVLTHHTISRIAVSYQTXVNLLSAIXSPQRETPEGAEAXPWYEPYIL 197

QY 121 GGVFQLEKQDLSAEINRPDYLPFASGGQVYFGIIL 157
Db 198 GGVFQLEKQDLSAEINRPDYLPFASGGQVYFGIIL 234

RESULT 14
O97538 AOTVO
ID O97538 AOTVO PRELIMINARY; PRT; 149 AA.
AC O97538;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Tumor necrosis factor alpha (Fragment).
GN Name=TNF-alpha;
OS Aotus vociferans (Spix's owl monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini; Cebidae;
OC Aotinae; Aotus.
OX NCBI_TaxID=57176;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22354194; PubMed=12466897; DOI=10.1007/s00251-002-0512-2;
RA Hernandez E.C., Suarez C.F., Mendez J.A., Echeverry S.J.,
RA Murillo L.A., Patarroyo M.E.;
RT "Identification, cloning, and sequencing of different cytokine genes
in four species of owl monkey.";
RL Immunogenetics 54:645-653(2002).
DR EMBL; AF014508; AAD01534.1; -; mRNA.
DR HSSP; P01375; 4TSV.
DR SMR; O97538; 1-149.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005164; P:tumor necrosis factor receptor binding; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR006053; TNF_alpha.
DR InterPro; IPR002959; TNF_alpha.
DR Murillo L.A., Patarroyo M.E.;
RT "Identification, cloning, and sequencing of different cytokine genes
in four species of owl monkey.";
RL Immunogenetics 54:645-653(2002).
DR EMBL; AF014508; AAD01534.1; -; mRNA.
DR HSSP; P01375; 4TSV.
DR SMR; O97538; 1-149.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005164; P:tumor necrosis factor receptor binding; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR006053; TNF_alpha.
DR InterPro; IPR002959; TNF_alpha.
DR InterPro; IPR006052; TNF_family.
DR InterPro; IPR003636; TNF_subf.
DR Pfam; PF00229; TNF; 1.
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Query Match 88.6%; Score 691; DB 2; Length 149;
Best Local Similarity 89.3%; Pred. No. 6.5e-68;
Matches 133; Conservative 4; Mismatches 12; Indels 0; Gaps 0;
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DR PRINTS; PRO1234; TNECROSISFCT.
DR PRINTS; PRO1235; TNFALPHA.
DR ProDom; PD002012; TNF_subf; 1.
DR SMART; SM00207; TNF; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS0049; TNF_2; 1.
DR NON_TER 1
FT NON_TER 149
SQ SEQUENCE 149 AA; 16415 MW; 86F1B9BCED16E689 CRC64;

Query Match 88.6%; Score 691; DB 2; Length 149;
Best Local Similarity 89.3%; Pred. No. 6.5e-68;
Matches 133; Conservative 4; Mismatches 12; Indels 0; Gaps 0;

QY 8 PSDXPVAVHVNANPQAEQQLWLNRRANALANGVELRDNLVVPSEGLYLYISQVLPFGQ 67
Db 1 PSDXPVAVHVNANPQAEQQLWLNRRANALANGVELRDNLVVPSEGLYLYISQVLPFGQ 60

QY 68 GCPSTHVLTHHTISRIAVSYQTXVNLLSAIXSPQRETPEGAEAXPWYEPYILGGVFPQLE 127
Db 61 GCPSTHVLTHHTISRIAVSYQTXVNLLSAIXSPQRETPEGAEAXPWYEPYILGGVFPQLE 120

QY 128 XGDRLSAEINRPDYLPFASGGQVYFGIIL 156
Db 121 XGDRLSAEINRPDYLPFASGGQVYFGIIL 149

RESULT 15
O97TG8 AOTNI
ID O97TG8 AOTNI PRELIMINARY; PRT; 149 AA.
AC O97TG8;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Tumor necrosis factor alpha (Fragment).
GN Name=TNF-alpha;
OS Aotus nigricaps (Black-headed owl monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini; Cebidae;
OC Aotinae; Aotus.
OX NCBI_TaxID=57175;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=22354194; PubMed=12466897; DOI=10.1007/s00251-002-0512-2;
RA Hernandez E.C., Suarez C.F., Mendez J.A., Echeverry S.J.,
RA Murillo L.A., Patarroyo M.E.;
RT "Identification, cloning, and sequencing of different cytokine genes
in four species of owl monkey.";
RL Immunogenetics 54:645-653(2002).
DR EMBL; AF097328; AAF21303.1; -; mRNA.
DR HSSP; P01375; 4TSV.
DR SMR; O97TG8; 1-149.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005164; P:tumor necrosis factor receptor binding; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR006053; TNF_alpha.
DR InterPro; IPR002959; TNF_alpha.
DR InterPro; IPR006052; TNF_family.
DR InterPro; IPR003636; TNF_subf.
DR Pfam; PF00229; TNF; 1.
DR PRINTS; PRO1234; TNECROSISFCT.
DR PRINTS; PRO1235; TNFALPHA.
DR ProDom; PD002012; TNF_subf; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS0049; TNF_2; 1.
DR NON_TER 1
FT NON_TER 149
SQ SEQUENCE 149 AA; 16415 MW; 86F1B9BCED16E689 CRC64;

Query Match 88.6%; Score 691; DB 2; Length 149;
Best Local Similarity 89.3%; Pred. No. 6.5e-68;
Matches 133; Conservative 4; Mismatches 12; Indels 0; Gaps 0;
```

Qy 8 PSDXPAHVAVANPQAEGLQWLNRRANALLANGVELRDNLVVPSEGLYLIYSQVLFKQ 67
Db 1 PSDKPAHVAVANPQAEGLQWLNRRANALLANGVELRDNLVVPSEGLYLIYSQVLFKQ 60
Qy 68 GCPSTHVLTHTSRIAUSYOTXVNLSSAIXSPCORETPEGAEAXPWEPIYLGGVFOLE 127
Db 61 GCPSTFMLLTHSRIAUSYQAKVNLSSAIXSPCORETPRGAKTNPWYEPYIYLGGVFOLE 120
Qy 128 XGDRLSAEINRPDYLDFAESGQVYFGIIA 156
Db 121 XGDRLSAEINLPDYLDLAESGQVYFGIIA 149

Search completed: April 3, 2006, 08:21:14
Job time : 116 secs

GenCore version 5.1.7
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OM protein - protein search, using sw model

Run on: April 3, 2006, 08:19:11 ; Search time 16 Seconds
(without alignments)
944.127 Million cell updates/sec

Title: US-10-668-178-2
Perfect score: 780
Sequence: 1 VRSSRTPSDXPVAVHVNVP.....RPDYLDPAESGVYFGIIAL 157

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : PIR 80.*

1: piri.*

2: piri2.*

3: piri3.*

4: piri4.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	774	99.2	233	1 QMHUN	tumor necrosis fac
2	767	98.3	233	1 S22052	tumor necrosis fac
3	707	90.6	233	2 S11688	tumor necrosis fac
4	692	88.7	234	1 J01344	tumor necrosis fac
5	673.5	86.3	232	1 S12606	tumor necrosis fac
6	629.5	80.7	235	1 QWMSN	tumor necrosis fac
7	627.5	80.4	234	1 A25451	tumor necrosis fac
8	627	80.4	185	2 S52715	tumor necrosis fac
9	627	80.4	233	1 S24642	tumor necrosis fac
10	625	80.1	234	1 JH0529	tumor necrosis fac
11	623.5	79.9	235	2 S54490	tumor necrosis fac
12	620.5	79.6	193	2 S06192	tumor necrosis fac
13	614.5	78.8	235	2 JH0029	tumor necrosis fac
14	552.5	32.4	197	1 JH0309	tumor necrosis fac
15	245.5	31.5	204	1 S24641	lymphotoxin - bovi
16	241.5	31.0	204	1 S17289	tumor necrosis fac
17	235	30.1	202	1 JH0869	tumor necrosis fac
18	233.5	29.9	202	1 B27303	tumor necrosis fac
19	209.5	26.9	205	1 QMHDX	tumor necrosis fac
20	166.5	21.3	278	2 A49266	fas ligand - rat
21	165	21.2	244	2 A46066	lymphotoxin beta -
22	160.5	20.6	279	2 A53062	fas ligand - mouse
23	151	19.4	281	2 J38707	fas ligand - human
24	139	17.8	306	2 I49139	lymphotoxin-beta -
25	127	16.3	260	2 S21738	CD40 ligand - mous
26	113	14.5	261	2 I53476	CD40 ligand - huma
27	112	14.4	261	2 S53090	CD40 ligand - bovi
28	73	9.4	286	2 S56436	hypothetical 29.7K
29	72.5	9.3	887	2 AD2009	hypothetical prote

30	72	9.2	724	2	A53371	glutamate-ammonia
31	71.5	9.2	799	2	C82929	ATP synthase alpha
32	71	9.1	265	2	B84108	hypothetical prote
33	71	9.1	286	2	E91277	probable oxidoredu
34	71	9.1	286	2	E86118	probable oxidoredu
35	70.5	9.0	264	2	AE2100	phosphonate ABC tr
36	70.5	9.0	403	2	S4192	aminomethyltransfe
37	70	9.0	193	2	A40738	surface antigen CD
38	70	9.0	4077	2	T17484	hypothetical prote
39	69.5	8.9	385	2	AH2269	heterocyst specifi
40	69.5	8.9	479	2	F70965	hypothetical prote
41	69	8.8	260	2	T30236	methyltransferase
42	69	8.8	601	2	T49752	hypothetical prote
43	69	8.8	1369	2	D86178	hypothetical prote
44	69	8.8	1560	2	T09202	probable tail comp
45	68.5	8.8	217	2	F86343	hypothetical prote
46	68	8.7	167	2	B71553	hypothetical prote
47	68	8.7	234	2	A40710	CD30 ligand - huma
48	68	8.7	476	2	H82177	conserved hypotet
49	68	8.7	1680	1	C5MS	complement C5 prec
50	67.5	8.7	288	2	A83443	probable transcrip
51	67.5	8.7	356	2	T30361	occlusion-derived
52	67	8.6	292	2	T33987	hypothetical prote
53	67	8.6	466	2	AC3206	two component sens
54	67	8.6	468	2	AC3206	UDP-N-acetylglucos
55	67	8.6	473	2	B70541	hypothetical prote
56	67	8.6	528	2	D90545	atp synthase alpha
57	67	8.6	882	2	AF3036	nitrate reductase
58	67	8.6	903	2	E98249	nitrate reductase
59	67	8.6	993	2	G84632	hypothetical prote
60	66.5	8.5	213	2	A2283	hypothetical prote
61	66.5	8.5	774	1	QRECFR	iron(III) dicitrat
62	66	8.5	357	2	B83652	hypothetical prote
63	66	8.5	413	2	T04520	hypothetical prote
64	66	8.5	675	2	E75393	hypothetical prote
65	65.5	8.4	332	2	T51835	3-methyl-2-oxobuta
66	65.5	8.4	822	2	T48570	hypothetical prote
67	65	8.3	256	2	B82076	probable general s
68	65	8.3	393	1	TVB866	protein kinase [EC
69	65	8.3	406	2	T30650	hypothetical prote
70	65	8.3	430	2	AG2256	dihydrolipoamide S
71	64.5	8.3	157	2	S65055	coat protein - Chi
72	64.5	8.3	175	2	AE3293	hypothetical prote
73	64.5	8.3	563	2	S77533	DNA mismatch repai
74	64.5	8.3	2352	2	C83229	probable non-ribos
75	64	8.2	195	2	S44788	D2007.2 protein -
76	64	8.2	230	2	A95354	probable GntR-fami
77	64	8.2	447	2	S37844	molybdopterin-conv
78	64	8.2	457	2	T24962	conserved hypotet
79	64	8.2	692	2	H69416	probable arabinosy
80	64	8.2	1083	2	H86921	hypothetical prote
81	63.5	8.1	153	2	S50431	hypothetical prote
82	63.5	8.1	157	2	S48701	coat protein, 18K
83	63.5	8.1	185	2	S21366	actin-binding prot
84	63.5	8.1	342	2	AF3357	anthranilate phosp
85	63.5	8.1	350	2	JQ1656	ethylene-forming e
86	63.5	8.1	499	2	F86645	amidase [imported]
87	63.5	8.1	511	2	T26124	hypothetical prote
88	63.5	8.1	614	2	T10862	phageolin G-box bi
89	63.5	8.1	756	2	A43582	surface antigen ms
90	63.5	8.1	863	2	F84504	probable retroelem
91	63	8.1	229	2	B82669	conserved hypotet
92	63	8.1	239	2	B40710	CD30 ligand - mous
93	63	8.1	303	2	T00899	hypothetical prote
94	63	8.1	1179	2	H82706	hypothetical prote
95	62.5	8.0	148	2	E84055	general stress pro
96	62.5	8.0	262	2	G87555	hypothetical prote
97	62.5	8.0	312	2	AD0779	conserved hypotet
98	62.5	8.0	475	2	D83202	alginate biosynthe
99	62.5	8.0	506	2	B87102	conserved membrane
100	62.5	8.0	513	2	T05948	cytochrome P450 77

ALIGNMENTS

RESULT 1

QMHUN
tumor necrosis factor alpha precursor [validated] - human
N;Alternate names: cachectin; TNFA
C;Species: Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence revision 28-Aug-1985 #text change 09-Jul-2004
C;Accession: A93585, S36153, A93351, A4189, B61478, I5311, S62610, I54522, A01646, B23
R;Nedwin, G.E.; Naylor, S.L.; Sakaguchi, A.Y.; Smith, D.; Jarrett-Nedwin, J.; Pennica, D
Nucleic Acids Res. 13, 6361-6373, 1985
A;Title: Human lymphotxin and tumor necrosis factor genes: structure, homology and chro
A;Reference number: A93585; MUID:86016093; PMID:2995927
A;Accession: A93585
A;Molecule type: DNA
A;Residues: 1-233 <NED>
A;Cross-references: UNIPARC:UPI000000D745; GB:X02910; GB:X02159; NID:937
R;Iris, F.J.M.; Bouguet-Lerret, L.; Prieur, S.; Caterina, D.; Primas, G.; Perrot, V.; Jurka
Nature Genet. 3, 137-145, 1993
A;Title: Dense Alu clustering and a potential new member of the NFkappaB family within a
A;Reference number: S36152; MUID:93272029; PMID:8499947
A;Accession: S36153
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-233 <IRI>
A;Cross-references: UNIPARC:UPI000000D745; EMBL:Z15026; NID:937211; PIDN:CAA78745.1; PID
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
R;Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Palladino, M.A.
Nature 312, 724-729, 1984
A;Title: Human tumour necrosis factor: precursor structure, expression and homology to 1
A;Reference number: A93351; MUID:85086244; PMID:6392892
A;Accession: A93351
A;Molecule type: mRNA
A;Residues: 1-233 <FEN>
A;Cross-references: UNIPARC:UPI000000D745; GB:X02910; GB:X02159; NID:937209; PIDN:CAA266
A;Note: this protein was isolated from the monocyte-like cell line HL-60 from a promyeloc
R;Wang, A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdel, J.N.;
Science 228, 149-154, 1985
A;Title: Molecular cloning of the complementary DNA for human tumor necrosis factor.
A;Reference number: A44189; MUID:85142190; PMID:3856324
A;Accession: A44189
A;Molecule type: mRNA
A;Residues: 1-62, 'S', '64-233 <WAN>
A;Cross-references: UNIPARC:UPI000002FB8A; GB:M10988; NID:G33737; PIDN:AAA61198.1; PID:
R;Fukuda, S.; Ando, S.; Sanou, O.; Tani, M.; Fujii, M.; Masaki, N.; Nakamura, K.I.; Ar
Lymphokine Res. 7, 175-185, 1988
A;Title: Simultaneous production of natural human tumor necrosis factor-alpha, -beta and
A;Reference number: A61478; MUID:88301617; PMID:2841543
A;Accession: B61478
A;Molecule type: protein
A;Residues: 83-102;109-119;121-128, 'X', 130-131;142-144, 'X', 146, 'XXX', 150-152;159-174;180
A;Cross-references: UNIPARC:UPI00001735C7; UNIPARC:UPI00001735C8; UNIPARC:UPI00001735C9;
R;Marmenout, A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Tizard, R.; Kawashima,
Eur. J. Biochem. 152, 515-522, 1985
A;Title: Molecular cloning and expression of human tumor necrosis factor and comparison
A;Reference number: I53311; MUID:86030296; PMID:3332069
A;Accession: I53311
A;Status: translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-233 <MAR>
A;Cross-references: UNIPARC:UPI000000D745; GB:M26331; NID:G339763; PIDN:AAA36758.1; PID:
A;Experimental source: U-937 cells
R;Takakura-Yamamoto, R.; Yamamoto, S.; Fukuda, S.; Kurimoto, M.
Eur. J. Biochem. 235, 431-437, 1996
A;Title: O-Glycosylated species of natural human tumor-necrosis factor-alpha.
A;Reference number: S62610; MUID:96202967; PMID:8631363
A;Accession: S62610
A;Molecule type: protein
A;Residues: 77-99 <TAK>
A;Cross-references: UNIPARC:UPI00001735CD
R;D'Alfonso, S.; Richiardi, P.M.
Immunogenetics 39, 150-154, 1994

A;Title: A polymorphic variation in a putative regulation box of the TNFA promoter regi
A;Reference number: I54522; MUID:94102809; PMID:7903959
A;Accession: I54522
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-8 <DAL>
A;Cross-references: UNIPARC:UPI00001735CE; GB:S68530; NID:G544751
R;Stevenson, F.T.; Buresten, S.L.; Lockaley, R.M.; Lovett, D.H.
J. Exp. Med. 176, 1053-1062, 1992
A;Title: Myristyl acylation of the tumor necrosis factor alpha precursor on specific ly
A;Reference number: A59163; MUID:93018820; PMID:1402651
A;Contents: annotation; identification of myristylated lysines
R;Aggarwal, B.B.; Kohr, W.J.; Haas, P.E.; Moffat, B.; Spencer, S.A.; Hensel, W.J.; Brin
J. Biol. Chem. 260, 2345-2354, 1985
A;Title: Human tumor necrosis factor. Production, purification, and characterization.
A;Reference number: A92511; MUID:85130974; PMID:3871770
A;Contents: annotation; disulfide bond
C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after induction
out detriment to normal cells. It can also act synergistically with interferon gamma to
C;Comment: TNF-alpha and -beta (lymphotoxin) are the products of different genes closely;
ut are produced by different cell types and have different induction kinetics.
C;Genetics:
A;Gene: GDB:TNF; TNFA
A;Cross-references: GDB:120441; OMIM:191160
A;Map position: 6p21.3-6p21.3
A;Introns: 62/3; 78/1; 94/1
C;Complex: homotrimer
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxic; glycoprotein; homotrimer; lipoprotein; lymphokine; mac
F1-76/Domain: propeptide #status predicted <PRO>
F17-233/Product: tumor necrosis factor #status experimental <MAT>
F19-20/Binding site: myristate (Lys) (covalent) #status experimental
F181/Binding site: carbohydrate (Ser) (covalent) (partial) #status experimental
F145-177/Disulfide bonds: #status experimental

Query Match 99.2%; Score 774; DB 1; Length 233;
Best Local Similarity 96.2%; Pred. No. 1.1e-78;
Matches 151; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 VRSSRTSDPVAHVANPQAEGLQWLNRRANALLANGVELRDNLVVPSEGLYLYS 60
|||||
DB 77 VRSSRTSPDKPVAHVANPQAEGLQWLNRRANALLANGVELRDNLVVPSEGLYLYS 136
|||||
QY 61 QVLFKGQCPSTHLLTHTISRIASVYQTKVNLISAIXSPCORETEPEGAAXPWTEPIYL 120
|||||
DB 137 QVLFKGQCPSTHLLTHTISRIASVYQTKVNLISAIXSPCORETEPEGAAXPWTEPIYL 196
|||||
QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 157
|||||
DB 197 GGVFQLEKGDRLSAEINRPDYLDFAESGVYFGIIAL 233
|||||

RESULT 2
S22052
tumor necrosis factor alpha precursor - baboon
C;Species: Papio sp. (baboon)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S22052
R;Sanjanwala, M.; Edwards, A.
submitted to the EMBL Data Library, September 1991
A;Description: Baboon Tumor Necrosis Factor Derived from Sequences of Genomic DNA.
A;Reference number: S22052
A;Accession: S22052
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-233 <SAN>
A;Cross-references: UNIPROT:P33620; UNIPARC:UPI00001370C4; EMBL:XG2141; NID:G38159; PID:
C;Genetics:
A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane protein
F19-20/Binding site: myristate (Lys) (covalent) #status predicted
F181/Binding site: carbohydrate (Ser) (covalent) #status predicted

A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-62,64-234 <YOU>
A;Cross-references: UNIPARC:UPI000016C4EC; EMBL:X55966; NID:gl403; PIDN:CAA39437.1; PID:
A;Note: comparison with the introns of homologous sequences suggest that this is probabl
C;Superfamily: tumor necrosis factor
C;Keywords: alternative splicing; cytokine; cytotoxin; glycoprotein; lipoprotein; lymphoc
F;1-77/Domain: propeptide #status predicted <PRO>
F;78-234/Product: tumor necrosis factor alpha #status predicted <TUM>
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;82/Binding site: myristate (Lys) (covalent) #status predicted
F;82/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;96/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;146-178/Disulfide bonds: #status predicted

Query Match 80.1%; Score 625; DB 1; Length 234;
Best Local Similarity 77.7%; Pred. No. 4.8e-62;
Matches 122; Conservative 14; Mismatches 21; Indels 0; Gaps 0;

QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
:||||: : ||||||| : |||: : |||: |||||: |||||: |||||: |||||: |||||
Db 78 LRSSQASNNKPVAVVAVNISAPGQLRWGDSYANALMANGVELKDNQNVPTDGLYLIYS 137

QY 61 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCORETEGEAAKWPYEPIYL 120
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 138 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCHRETEGEAAKWPYEPIYQ 197

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 198 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 234

RESULT 11
154490
tumor necrosis factor alpha precursor - white-footed mouse
C;Species: Peromyscus leucopus (white-footed mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 09-Jul-2004
C;Accession: 154490
R;Crew, M.D.; Filipowsky, M.E.
A;Title: Sequence of the tumor necrosis factor/cachectin (TNF) gene from Peromyscus leuc
A;Reference number: 154490; MUID:92218012; PMID:1348497
A;Accession: 154490
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-235 <RES>
A;Cross-references: UNIPROT:P36939; UNIPARC:UPI00001370C5; GB:M59233; NID:g202506; PIDN:
C;Genetics:
A;Gene: PLTNF
A;Introns: 62/3; 81/1; 97/1
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted

Query Match 79.9%; Score 623.5; DB 2; Length 235;
Best Local Similarity 75.2%; Pred. No. 7.1e-62;
Matches 118; Conservative 20; Mismatches 18; Indels 1; Gaps 1;

QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 80 LRSSQASNNKPVAVVAVNHQVDEQLWLSRGNALLANGMDLKNQNVIPADGLYLYVS 139

QY 61 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCORETEGEAAKWPYEPIYL 120
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 140 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCHRETEGEAAKWPYEPIYL 198

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 199 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 235

RESULT 12
806192

tumor necrosis factor alpha precursor - goat (fragment)
N;Alternate names: cachectin; TNF alpha
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 09-Jul-2004
C;Accession: S06192; S41867
R;Goldstein, I.M.; Henner, D.; Talhouk, A.
submitted to the EMBL Data Library, March 1989
A;Reference number: S06192
A;Accession: S06192
A;Molecule type: mRNA
A;Residues: 1-193 <COL>
A;Cross-references: UNIPROT:P13296; UNIPARC:UPI000016C3FD; EMBL:X14828; NID:g992; PIDN:
R;Rimstad, E.
submitted to the EMBL Data Library, January 1994
A;Reference number: S41867
A;Accession: S41867
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 36-38,'S',40-78,'A',80-88,'N',90-114,'Q',116-123,'D',125-144,'G',145-173,'I'
A;Cross-references: UNIPARC:UPI000016C3FE; EMBL:X77317; NID:g452607; PIDN:CAA54523.1; P
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lymphokine; macrophage; membrane protein
F;42/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;106-138/Disulfide bonds: #status predicted

Query Match 79.6%; Score 620.5; DB 2; Length 193;
Best Local Similarity 78.3%; Pred. No. 1.2e-61;
Matches 123; Conservative 13; Mismatches 20; Indels 1; Gaps 1;

QY 1 VRSSRTPSDXPVAHVANPQAEGLQWLNRRANALLANGVELRDNLQVVPSEGLYLIYS 60
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 38 LRSSQASNNKPVAVVAVNISAPGQLRWGDSYANALMANGVELKDNQNVPTDGLYLIYS 97

QY 61 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCORETEGEAAKWPYEPIYL 120
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 98 QVLFYGGCPSPTVLTHTTISRIVSYQTKVNLISAIXSPCHRETEGEAAKWPYEPIYQ 156

QY 121 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 157
:||||: : ||||||| : |||||: |||||: |||||: |||||: |||||: |||||: |||||
Db 157 GGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL 193

RESULT 13
JU0029
tumor necrosis factor alpha precursor - rat
N;Alternate names: cachectin; TNF alpha
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 09-Jul-2004
C;Accession: JU0029; JN0868; S21674
R;Shirai, T.; Shimizu, N.; Horiguchi, S.; Ito, H.
Agric. Biol. Chem. 53, 1733-1735, 1989
A;Title: Cloning and expression in Escherichia coli of the gene for rat tumor necrosis f
A;Reference number: JU0029
A;Accession: JU0029
A;Molecule type: DNA
A;Residues: 1-235 <SHC>
A;Cross-references: UNIPROT:P16599; UNIPARC:UPI000004368F
R;Kwon, J.; Chung, I.Y.; Benveniste, E.N.
Gene 132, 227-236, 1993
A;Title: Cloning and sequence analysis of the rat tumor necrosis factor-encoding genes.
A;Reference number: JN0868; MUID:94040766; PMID:8224868
A;Accession: JN0868
A;Molecule type: DNA
A;Residues: 1-235 <KWO>
A;Cross-references: UNIPARC:UPI000004368F; GB:L00981; NID:g205253; PIDN:AAA16275.1; PID:
R;Estler, H.C.; Grewe, M.; Gausling, R.; Pavlovic, M.; Decker, K.
Biol. Chem. Hoppe-Seyler 373, 271-281, 1992
A;Title: Rat tumor necrosis factor-alpha. Transcription in rat Kupffer cells and in vitr
A;Reference number: S21674; MUID:92329007; PMID:1627266
A;Accession: S21674
A;Molecule type: mRNA
A;Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <EST>
A;Cross-references: UNIPARC:UPI000017086D; GB:X66539; GB:S40199; NID:g395369; PIDN:CAA47

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